Clinton Creek Surface Water Quality and Hydrological Investigations Quarterly Report: August 2022

Prepared For
Assessment and Abandoned Mines
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1 OVERVIEW

This quarterly report provides a summary of activities undertaken and data collected during EDI's August 2022 trip to Clinton Creek as part of the 2022/2023 Surface Water Quality and Hydrological Investigations. This was the second field event under the contract extension. The following report describes trip information and overview (Table 1-1), site conditions, meteorology, hydrology, water quality data, program recommendations, maps (Appendix A), and photos (Appendix B) for the August 2022 site visit (Table 1-2).

Table 1-1. August 2022 trip information.

Trip dates	August 8–11, 2022
EDI field staff	Joel MacFabe and Kara Nyland (EDI)
Weather during trip	Air temperatures ranged between 8 and 18°C. Weather conditions ranged from clear and sunny to overcast and rain.
Changes to project scope (i.e., additional sites sampled)	All sites were sampled according to project scope.
Alterations to sample schedule/budget	None
Additional comments	The water level and flow at most sites was moderate. As during the January, May, and August trips, the AAM/Wood logger at E1(H) could not be downloaded because the cable connecting to the logger is severed below the water level and requires repair, likely replacement. Beavers are currently building a dam at the GWCC-1/GWCC-2 pond, which is flooding the area. An additional 15 cm rise of water will result in both seeps being underwater. A discharge measurement could not be completed at the R3 site due to beaver dam backwater effects. Unfortunately, no Tr'ondëk Hwëchin staff were available to assist EDI for this sampling event.
Wildlife sightings	None
Safety concerns	None

Table 1-2. Summary of information provided in this report.

Report Section	Description
Site Conditions	• Summary of weather and general site conditions
Meteorology	• Statement on meteorological station status and identification of any data gaps or QA/QC issues
Hydrology	• Discussion of hydrology data for August 2022 • Statement on QA/QC for the data collected this month
Water Quality	• Summary of water quality results for August 2022 • Statement on QA/QC sample results for this month
Program Recommendations	• Program recommendations for meteorological, hydrology and water quality programs

1.1 SITE CONDITIONS

Site conditions during the August trip were typical of late summer as observed in recent years, with moderate to low flows in most waterbodies. Turbidity and suspended sediment were low to moderate in most waterbodies.

Access in August was via truck, quad, foot, and boat. All sites were accessible, except for Porcupine Lake. Access to Porcupine Lake is currently considered unsafe due to potential instability of the pit walls.

2 METEOROLOGY

An automated station, located on the waste rock pile near Hudgeon Lake, collects local meteorological data. EDI remotely downloaded data for the period of July 1, 2022, to August 31, 2022, and conducted a QA/QC review of the available data. On July 19, 2022, Northern Avcom completed a maintenance visit to the station to update the station operating script and exchange the existing datalogger and temperature/humidity, wind, precipitation, and barometric pressure sensors with newly calibrated units.

The operating script update corrected an error in the wind direction data. Prior to the correction, hourly averaging of wind direction measurements was performed with an incorrect equation within the datalogger, resulting in a loss of wind observations between 20 and 330 degrees and erroneous generation of observations between 150 to 250 degrees. The new wind direction algorithm corrects this by converting wind directions into constituent vector values before calculating hourly averages and reverting the vector values to a mean wind direction azimuth. As the prevailing wind directions at Clinton Creek are typically around 120 and 300 degrees, the previous wind data still contains dominant wind behaviour and therefore retains value for future analyses. Wind direction data for all of 2022 prior to the code update on July 19, 2022, has been flagged as poor in the meteorology database.

All sensors otherwise appear to be functioning properly for this period, with improved performance through replacement with calibrated sensors. The hourly data were reviewed in EDI's proprietary wPro system and exported into a corrected data table (Microsoft Excel Worksheet format, .xlsx).

3 HYDROLOGY

A summary of surface water conditions and hydrometric monitoring tasks completed at each station in August 2022 is provided in Table 3-1. Additional hydrometric survey information (including levelling survey data) is available in Appendix C.

3.1 FIELD RESULTS SUMMARY

Flows in August across the Clinton Creek site were low to moderate, typical of late summer conditions. The field crew visited 15 hydrometric stations in August. The crew completed measurements with the velocity-area method using an Acoustic Doppler Velocimeter (ADV) at eight stations, with the salt dilution gauging method at four stations, and the volumetric method at two stations. Flow measurements could not be completed at the R3 station, as a beaver dam has flooded the valley resulting in unsuitable site conditions (Table 3-1).

Continuous water level data are available for station E3(H) until August 9, when the logger was last downloaded. Water levels since the previous quarterly report declined until June 7 to a low of 0.068 m. Several storm pulses were recorded resulting in a peak summer water level of 0.45 m on June 11 with more subdued peaks occurring on July 3, 12, 19 and 22. Measured discharge on August 9 was 0.052 m^3/s (Table 3-1).

Water level data from E1(H) are available until August 31. The logger became compromised on August 3, 2021; under direction from Yukon Government AAM, Northern Avcom repaired the logger, and then together with EDI reinstalled the logger, stilling well, and levelling survey benchmarks on October 6, 2021. Lake levels since the previous quarterly report have ranged between 0.441 m and 1.109 m with the peak level observed on August 16. Measured discharge at the time of the site visit on August 11 was at 0.190 m^3/s.

Table 3-1. Hydrometric data and site conditions in August 2022.

Hydrometric Identifier (HID)	Date	Time	Discharge Measurement Method [1]	Discharge (m^3/s)	Discharge Data Flag [2]	Comments
E1(H)	11-Aug2022	10:40	ADV-MID	0.190	-	Discharge collected at the upstream edge of the ford. Survey completed. Staff gauge at beginning of discharge measurement 0.371 m.
E2	09-Aug-2022	16:00	ADV-MID	0.167	-	Discharge collected upstream of riffle, approximately 5 m upstream of site. Water level moderate.
E3(H)	09-Aug-2022	18:10	ADV-MID	0.052	-	Discharge measurement collected approximately 4 m upstream of road crossing. Site survey conducted. Logger downloaded after discharge and survey completed. Staff gauge unchanged during discharge measurement (0.182 m). Water level moderate.
E4	09-Aug-2022	13:50	ADV-MID	0.314	-	Discharge collected approximately 8 m upstream of site sign. Water level moderate.
E7	09-Aug-2022	11:20	ADV-MID	0.301	-	Discharge collected approximately 30 m upstream of confluence with Forty Mile River. No backwater effects from confluence at discharge measurement site. Significantly more sediment accumulation on left bank than in previous years. Water level moderate.
R1	10-Aug-2022	11:05	ADV-MID	0.110	-	Discharge measurement collected at site sign. Channel appears to be filled in with more sand and gravel on left downstream bank than previous seasons. Flow rate low to moderate.
R1B	10-Aug-2022	11:00	SS	0.010	-	Salt dilution gauging discharge measurement collected at site waypoint.
R2	10-Aug-2022	12:45	ADV-MID	0.075	-	Discharge measurement collected 12 m upstream from site sign. Water level moderate.
R3	09-Aug-2022	15:00	N	-	X	No flow detected. Unsuitable conditions: discharge measurement not completed.
R4	09-Aug-2022	14:50	ADV-MID	0.713	-	Discharge measurement collected approximately 12 m upstream of site sign. Two measurements of 10 panels each were averaged to calculate discharge. Water level moderate.

Hydrometric Identifier (HID)	Date	Time	Discharge Measurement Method [1]	Discharge (m^3/s)	Discharge Data Flag [2]	Comments
R7	11-Aug-2022	17:10	V	0.005	-	Volumetric discharge measurement collected; trace amount of flow missed under trough. Water level moderate.
R8	10-Aug-2022	13:35	SS	0.001	-	Salt dilution gauging measurement completed. Water level moderate.
R9	10-Aug-2022	18:20	V	0.002	-	Volumetric discharge measurement collected from weir cascade; all flow captured. Flow rate moderate.
R11(H)	09-Aug-2022	14:00	SS	0.003	-	Salt dilution gauging discharge measurement collected at site waypoint.
GWCC-5	11-Aug-2022	17:35	SS	0.002	-	Salt dilution gauging measurement completed downstream of site sign. Water level moderate.

[1] Discharge methods: ADV-MID – Mid Section Method using Acoustic Doppler Velocimeter, SS – Salt Dilution Gauging, V – Volumetric, N – None (Appendix C).

[2] Data flag codes found in the Hydrology Legend in Appendix C.

4 WATER QUALITY

We visited 25 sites for surface water quality sampling during the August 2022 trip; samples were collected from all sites (Table 4-1). All samples were collected as per the methodology document prepared for the Clinton Creek site (EDI Environmental Dynamics Inc. 2020). In general, water level was moderate to low, and water clarity was generally clear.

We submitted all samples for analysis to ALS Laboratories under chain of custody documentation. Due to the limited flight schedule from Dawson to Whitehorse, all samples were delivered to ALS Laboratories in Whitehorse on August 12. Therefore, the samples missed the 72-hour nutrient (nitrate and nitrite) sampling holding time.

We compiled a summary of site conditions and a record of sample collection (Table 4-1). In-situ and laboratory results summary tables as well as the ALS Certificates of Analysis are attached (Appendix D and Appendix E). We reviewed the results to determine parameters that were present at concentrations that exceeded the relevant CCME-AL guidelines (Table 4-2).

Table 4-1. Summary of water quality sample site conditions and record of samples collected in August 2022.

Site ID	Sample Collected? (Y/N)	Sampling Date	Water Level	Turbidity	Comments
E1	Y	11-Aug2022	moderate	clear	Sample collected upstream of ford on right downstream bank. Replicate sample collected (CC-201). Channel flow moderate. Some foam on water surface.
E1(H)	Y	11-Aug-2022	moderate	clear	Sample collected approximately 10 m upstream of ford on left downstream bank. Vegetation and suspended solids present. Replicate collected at site (CC-202).
E2	Y	09-Aug-2022	moderate	clear	Sample collected approximately 10 m upstream of site sign on left downstream bank. Water warmer than lower Clinton Creek. Fines dropped out on top of substrate. Some foam on top of water in eddies.
E3	Y	09-Aug-2022	moderate	clear	Sample collected approximately 4 m upstream of site sign from left downstream bank.
E4	Y	09-Aug-2022	moderate	clear	Sample collected on the left downstream bank approximately 15 m upstream from site sign. Flow rate moderate. No signs of recent beaver activity in area.
E7	Y	09-Aug-2022	moderate	clear	Sample collected from left downstream bank at site waypoint. Significantly more sediment accumulation on left bank than in previous years.
E8	Y	09-Aug-2022	moderate	clear	Sample collected from flowing water on left downstream bank at site sign. Water level moderate, water clear, some foam/bubbles on surface at time of sampling.
R1	Y	10-Aug-2022	moderate	clear	Sample collected at site sign at left downstream bank. Channel moderate to low and clear with suspended solids in water. Channel appears to be filled in with more sand and gravel on left downstream bank than in previous years.
R2	Y	10-Aug-2022	moderate	clear	Sample collected 4 m upstream of site sign, on right downstream bank. Channel flow moderate, water clear. Some fine sediments suspended in water column.
R3	Y	09-Aug-2022	high	clear	Sample collected at shore of beaver pond at site sign; beaver dam has flooded the valley. Crew did not detect signs of flow at sampling site.
R4	Y	09-Aug-2022	moderate	clear	Sample collected at centre of channel approximately 16 m upstream of site sign. Channel flow rate moderate, water clear.
R6	Y	09-Aug-2022	moderate	clear	Sample collected from site waypoint from downstream bank of right-most channel, from flowing water. Upstream inputs into river observed from right bank wetlands. Moderate flow including in left most channel.
R7	Y	11-Aug-2022	moderate	clear	Sample collected 3 m upstream of trough. Small amounts of total suspended solids.
R8	Y	10-Aug-2022	moderate	moderate	Sample collected from site sign.

Site ID	Sample Collected? (Y/N)	Sampling Date	Water Level	Turbidity	Comments
R9	Y	10-Aug-2022	moderate	clear	Sample collected at site just upstream of weir. Flow rate moderate, water clear. Fine suspended solids in water.
R11	Y	09-Aug-2022	moderate	clear	Sample collected at site sign. Creek flowing moderate and clear. Small and large woody debris in channel.
GWCC-1	Y	11-Aug-2022	low	clear	Sample collected from site sign seepage. Beaver dam at pond backing up and raising water level. Future sample integrity of site may be compromised by rising water level (seeps will likely be underwater with another 15 cm rise in water level).
GWCC-2	Y	11-Aug-2022	low	clear	Sample collected at seepage 5 m closer to GWCC-1 than site sign. Due to beaver dam causing rise in water level, sampling site GWCC-2 at site sign was not possible. Seepage at sign is under water.
GWCC-3	Y	11-Aug-2022	low	clear	Sample collected from seep in hillside at site sign. Flow rate low, water clear.
GWCC-4	Y	11-Aug-2022	moderate	clear	Sample collected at site sign. Flow detected. Flow rate moderate with no input from upslope ditch.
GWCC-5	Y	11-Aug-2022	moderate	clear	Sample collected approximately 1 m upstream of site sign. Significant algae growth in stream bed.
HL3-T	Y	10-Aug-2022	moderate	clear	Sample collected from surface. Light wind caused drifting during depth profile requiring several repositioning events.
HL3-M	Y	10-Aug-2022	moderate	clear	Sample collected 10 m below surface.
HL3-B	Y	10-Aug-2022	moderate	clear	Sample collected 23 m below surface.
SL	Y	11-Aug-2022	low	clear	Sample collected from pond at creek input. Water clear, can see to bottom of pond. Staff gauge well above water level.
Field Blank	Y	10-Aug-2022	-	-	Sample collected at R9.
Travel Blank	Y	09-Aug-2022	-	-	Sample prepared by ALS, carried with the crew throughout the site visit, and returned to ALS for analysis with the other samples.

4.1 WATER QUALITY LAB RESULTS SUMMARY: AUGUST 2022

Analysis of the August 2022 samples indicated that the parameters listed in Table 4-2 exceed the applicable CCME-AL guidelines.

Table 4-2. Summary of CCME-AL guideline exceedances for water quality samples collected in August 2022.

Site ID	Parameters exceeding CCME-AL guidelines
E1	• Dissolved oxygen
E1(H)	• Dissolved oxygen • Selenium – total
E2	• Dissolved oxygen • Iron – total • Selenium – total
E3	• Fluoride • Chromium – total
E7	• Iron – total
E8	• Aluminium – total
R1	• Iron – total • Manganese – total and dissolved
R2	• Fluoride
R3	• Fluoride • Selenium – total
R4	• Selenium – total
R6	• Aluminium – total
R7	• Aluminium – total • Chromium – total • Copper – total • Iron – total
R8	• Aluminium – total • Chromium – total • Copper – total • Iron – total • Selenium – total
R9	• Iron – total

Site ID	Parameters exceeding CCME-AL guidelines
	• Selenium – total
GWCC-1	• Dissolved oxygen • Chromium – total • Hexavalent chromium – total • Selenium – total
GWCC-2	• Dissolved oxygen • Chromium – total • Hexavalent chromium – total • Selenium – total
GWCC-3	• Dissolved oxygen • Fluoride • Selenium – total
GWCC-4	• Dissolved oxygen • Fluoride
GWCC-5	• Dissolved oxygen • Fluoride • Iron – total
SL	• Arsenic – total • Chromium – total • Selenium – total
HL3-T	• Dissolved oxygen • Selenium
HL3-M	• Dissolved oxygen • Fluoride • Chromium – total • Iron – total • Manganese – total and dissolved
HL3-B	• Dissolved oxygen • Arsenic – total • Chromium – total • Iron – total • Manganese – total and dissolved

Analysis of asbestos fiber concentrations resulted in the following:

- E2 (Clinton Creek, downstream of Porcupine Creek, but upstream of Wolverine Creek) was below analytical sensitivity.
- E3 (Wolverine Creek, upstream of culvert) was below analytical sensitivity.

- R1 (Clinton Creek, upstream of Hudgeon Lake) was below analytical sensitivity.
- R3 (Wolverine Creek upstream of tailings) was below analytical sensitivity.

4.2 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM RESULTS

The QA/QC program includes a travel blank, a field blank and two replicate samples. A review of the laboratory water quality QA/QC program results indicates that the average relative percent difference (RPD) was within acceptable ranges, and there was no contamination of field samples (Table 4-3).

Table 4-3. QA/QC program results for water quality samples collected in August 2022.

Quality Control Action	Objective	Sample Results	Explanation / Action Taken
Sample Integrity	Recommended sample holding times are met	Due to limited options for transporting samples from site to the Dawson City airport, all samples exceeded the recommended 72-hour nitrate and nitrite sampling holding times. All other applicable sampling holding times were met.	All data reported in ranges consistent with historical data. No impacts on data quality are expected.
Sample Integrity	In situ and lab results are comparable	Objective was met.	None
Dissolved Metals : Total Metals Ratio	The dissolved metals concentration should be <1.2x the total metal concentration (results must be >5x minimum detection limit [MDL])	Dissolved thallium was 1.28x the total metal concentration at site GWCC-5.	Some heterogeneity of lab results is anticipated at low concentrations. Given that only thallium from one site had a ratio >1.2%, no impacts on data quality are expected.
Field and Travel Blank Samples	Blanks should not exceed the detection limit for any parameter	Objective was met.	None
Field Replicate Sample 1	Replicate Relative Percent Difference (RPD) should be <20% (results of one replicate must be >5x MDL)	The average RPD of the replicate sample for E1 was 5% with an average difference of 5% for total and 4% for dissolved metals.	The sample RPD was within acceptable limits and no effect on data quality is expected.
Field Replicate Sample 2	Replicate Relative Percent Difference (RPD) should be <20% (results of one replicate must be >5x MDL)	The average RPD of the replicate sample for E1(H) was 5% with an average difference of 6% for total and 3% for dissolved metals.	The sample RPD was within acceptable limits and no effect on data quality is expected.

4.3 HUDGEON LAKE IN-SITU DEPTH PROFILE

On August 10, 2022, we collected in-situ water quality data through the water column at one metre increments in Hudgeon Lake at the HL3 site. Water temperature, dissolved oxygen (DO), specific conductance (SPC), pH, and oxidation-reduction potential (ORP) at each depth interval are reported in the profile summary table and graphs (Appendix D). The crew estimated the bottom of Hudgeon Lake to be at 24 m depth.

Water temperature steadily decreased from a maximum of 14.7°C at 1 m below the surface to a minimum of 0.7°C at 22 m below the surface. The DO concentrations were low throughout the water column, with a maximum of 8.13 mg/L at the lake surface. Conditions were anoxic below 5 m depth, where DO concentrations fell below 2.00 mg/L. The lowest DO concentration was 0.23 mg/L and was measured at 7 m depth, with concentrations rising slightly to 0.38 mg/L near the bottom of the lake. Specific conductance increased with depth from a minimum of 679 µS/cm at the surface to a maximum of 1938 µS/cm near the bottom of the lake. The pH steadily decreased from a maximum of 7.91 at 1 m below the surface, to a minimum of 6.92 at a depth of 22 m. The ORP declined from a maximum of 44.2 mV at 1 m to a minimum of -90.4 mV at 10 m depth, before rising back up to -29.3 mV at 23 m depth near the lakebed.

5 PROGRAM RECOMMENDATIONS

5.1 DISCHARGE AT R3 (WOLVERINE CREEK)

During the August 2020 site visit, the EDI field crew noted that beaver activity at site R3 on Wolverine Creek had rendered conditions unsuitable for discharge measurements. Beaver activity has continued throughout 2020, 2021 and 2022; therefore, discharge measurements have not been collected at R3 since May 2020. The beaver dam will need to be removed before accurate discharge measurements can resume.

5.2 SAMPLING CONDITIONS AT GWCC-1 AND GWCC-2

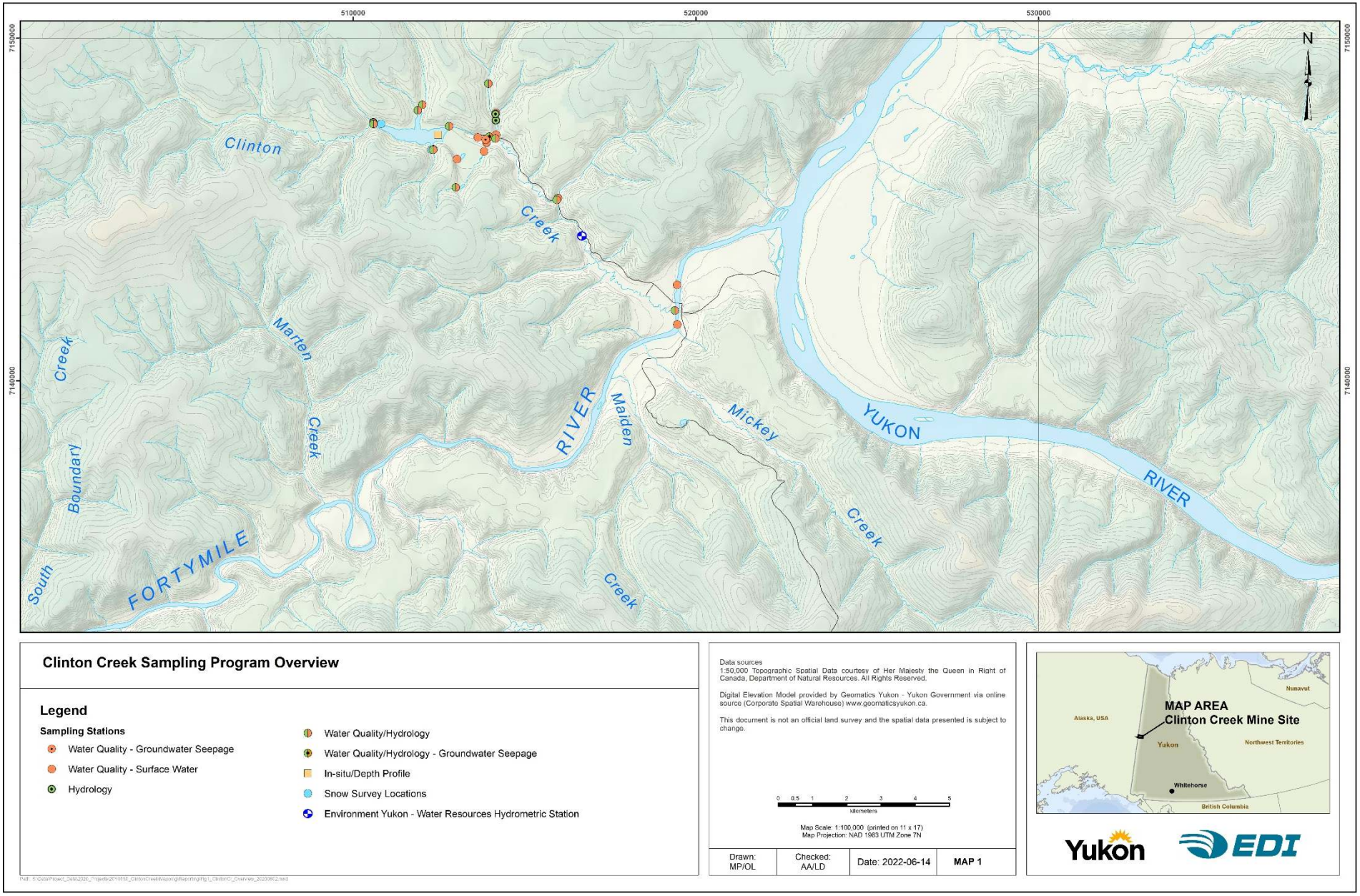
During the August 2022 site visit, the crew observed beaver activity in the pond at sites GWCC-1 and -2. This has raised the water level of the pond; an additional 15 cm increase in water level (which is likely) will flood both sampling locations.

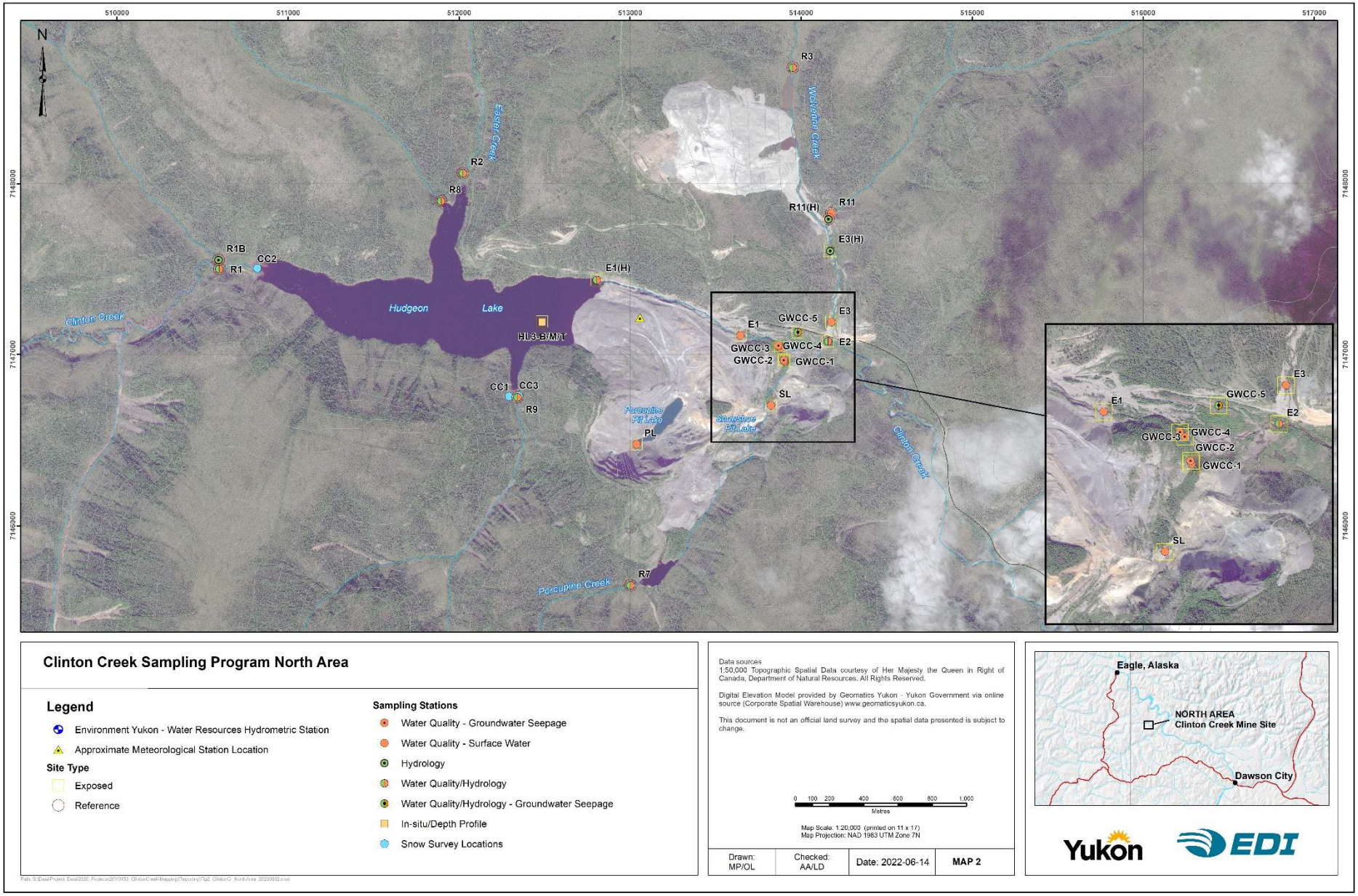
6 REFERENCES

EDI Environmental Dynamics Inc. 2020. Clinton Creek Surface Water Quality and Hydrological Investigations 2020/21: Methodology. Prepared for Assessment & Abandoned Mines, Government of Yukon, Whitehorse, Yukon.

APPENDICES

APPENDIX A MAPS OF HYDROMETRIC AND WATER QUALITY STATIONS





Clinton Creek Sampling Program North Area

Legend

- Environment Yukon - Water Resources Hydrometric Station
- Approximate Meteorological Station Location

Site Type

- Exposed
- Reference

Sampling Stations

- Water Quality - Groundwater Seepage
- Water Quality - Surface Water
- Hydrology
- Water Quality/Hydrology
- Water Quality/Hydrology - Groundwater Seepage
- In-situ/Depth Profile
- Snow Survey Locations

Data sources
1:50,000 Topographic Spatial Data courtesy of Her Majesty the Queen in Right of Canada, Department of Natural Resources. All Rights Reserved.

Digital Elevation Model provided by Geomatics Yukon - Yukon Government via online source (Corporate Spatial Warehouse) www.geomaticsyukon.ca.

This document is not an official land survey and the spatial data presented is subject to change.

0 100 200 400 600 800 1,000
Metres

Map Scale: 1:20,000 (printed on 11 x 17)
Map Projection: NAD 1983 UTM Zone 7N

Drawn:	Checked:	Date:	
MP/OL	AA/LD	2022-06-14	MAP 2

Yukon EDI

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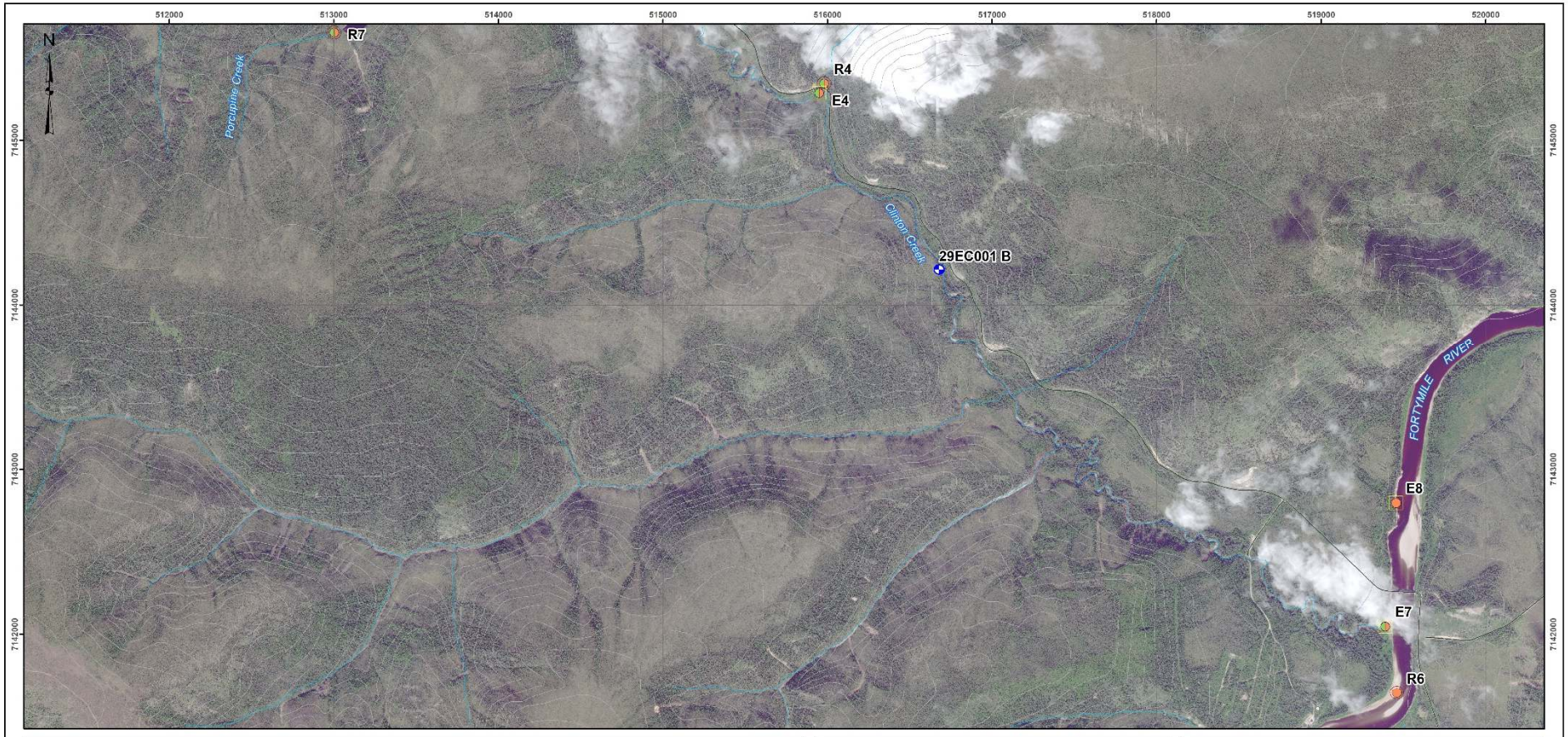

Clinton Creek Sampling Program South Area

Legend

- Environment Yukon - Water Resources Hydrometric Station
- Approximate Meteorological Station Location

Site Type

- Exposed
- Reference

Sampling Stations

- Water Quality - Groundwater Seepage
- Water Quality - Surface Water
- Hydrology
- Water Quality/Hydrology
- Water Quality/Hydrology - Groundwater Seepage
- In-situ/Depth Profile
- Snow Survey Locations

Data sources
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Digital Elevation Model provided by Geomatics Yukon - Yukon Government via online source (Corporate Spatial Warehouse) www.geomaticsyukon.ca.

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Metres

Map Scale: 1:24,000 (printed on 11 x 17)
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Yukon EDI

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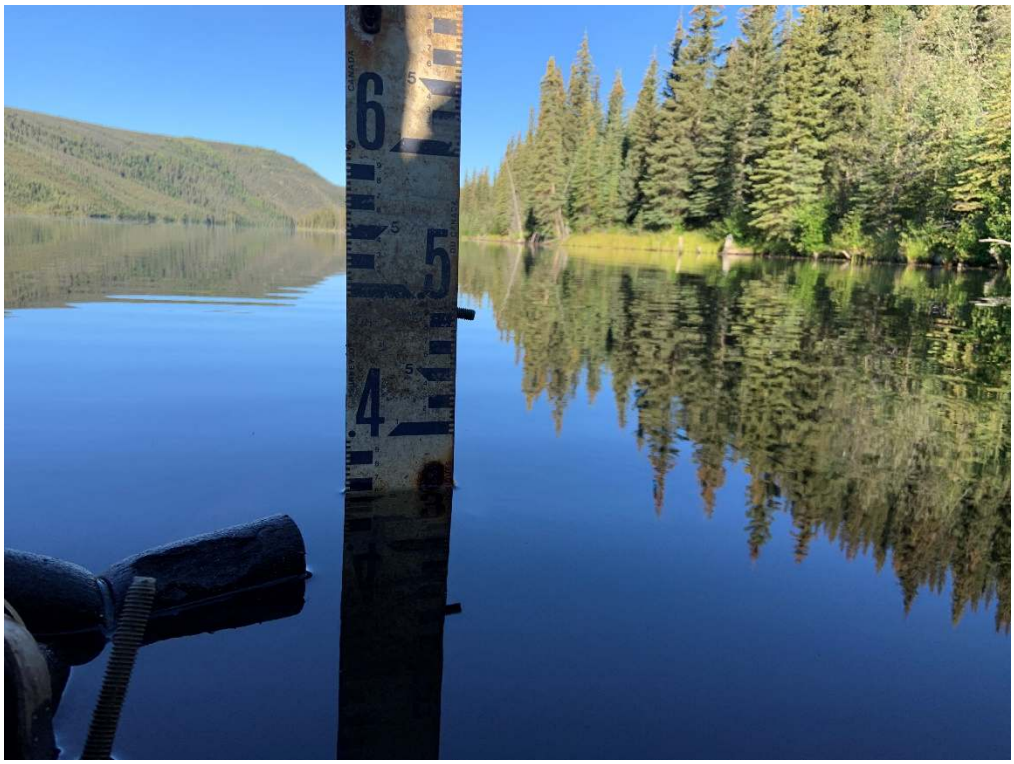
APPENDIX B STATION PHOTOS

Appendix Photo 1. E1 – looking upstream from ford.

Appendix Photo 2. E1 – looking downstream from sampling location.

Appendix Photo 3. E1(H) – looking upstream.

Appendix Photo 4. E1(H) – looking downstream.



Appendix Photo 5. E1(H) – staff gauge.

Appendix Photo 6. E1(H) – overview.

Appendix Photo 7. E2 – looking upstream.

Appendix Photo 8. E2 – looking downstream.

Appendix Photo 9. E3 – looking upstream.

Appendix Photo 10. E3 – looking downstream.

Appendix Photo 11. E3(H) – looking upstream.

Appendix Photo 12. E3(H) – looking downstream.

Appendix Photo 13. E3(H) – staff gauge.

Appendix Photo 14. E3(H) – erosion along right downstream bank.

Appendix Photo 15. E4 – looking upstream.

Appendix Photo 16. E4 – looking downstream.

Appendix Photo 17. E7 – looking upstream.

Appendix Photo 18. E7 – looking downstream.

Appendix Photo 19. E8 – looking upstream.

Appendix Photo 20. E8 – looking downstream.

Appendix Photo 21. GWCC-1 – overview.

Appendix Photo 22. GWCC-2 – overview.

Appendix Photo 23. GWCC-3 – overview.

Appendix Photo 24. GWCC-4 – overview.

Appendix Photo 25. GWCC-5 – looking upstream.

Appendix Photo 26. GWCC-5 – looking downstream.

Appendix Photo 27. R1 – looking upstream.

Appendix Photo 28. R1 – looking downstream.

Appendix Photo 29. R1B – looking upstream.

Appendix Photo 30. R1B – looking downstream.

Appendix Photo 31. R2 – looking upstream.

Appendix Photo 32. R2 – looking downstream.

Appendix Photo 33. R3 – looking upstream.

Appendix Photo 34. R3 – looking downstream.

Appendix Photo 35. R4 – looking upstream.

Appendix Photo 36. R4 – looking downstream.

Appendix Photo 37. R6 – looking upstream.

Appendix Photo 38. R6 – looking downstream.

Appendix Photo 39. R7 – looking upstream.

Appendix Photo 40. R7 – looking downstream.

Appendix Photo 41. R8 – looking upstream.

Appendix Photo 42. R8 – looking downstream.

Appendix Photo 43. R9 – looking upstream.

Appendix Photo 44. R9 – looking downstream.

Appendix Photo 45. R11 – looking upstream.

Appendix Photo 46. R11 – looking downstream.

Appendix Photo 47. R11(H) – looking upstream.

Appendix Photo 48. R11(H) – looking downstream.

Appendix Photo 49. Upper SL – looking downstream.

Appendix Photo 50. Upper SL – overview.

APPENDIX C HYDROMETRIC AND SURVEY DATA

Hudgeon Lake survey data - E1(H)			Units in m							
Site ID	Date	Time	Stage	BM1	BM2	BM3	Top of Staff Gauge	Top of Logger Pipe	Staff Gauge	Review notes
E1(H)	2020-05-11	10:55	99.822	100.000	100.997	101.091	99.554	-	1.266	Survey affected by spring thaw (frost heaving).
E1(H)	2020-05-19	14:20	99.147	100.000	101.030	101.127	99.585	-	0.558	Survey affected by spring thaw (frost heaving).
E1(H)	2020-08-04	12:38	99.158	100.000	101.055	101.206	99.660	-	0.498	Benchmark movement since freshet surveys.
E1(H)	2020-10-05	10:00	99.162	100.000	101.052	101.206	99.659	-	0.504	Benchmarks stabilized over the summer.
E1(H)	2021-05-11	12:00	99.396	100.000	100.158	101.129	99.610	99.293	0.780	Benchmark movement since last survey in October 2020.
E1(H)	2021-08-04	12:30	99.063	100.000	100.181	101.239	99.732	99.506	0.328	Benchmark and staff gauge movement since freshet survey, with a lifting trend.
E1(H)	2021-10-06	17:18	99.084	100.000	101.206	101.251	99.681	99.503	0.401	New staff gauge mount installed caused elevation shift.
Site ID	Date	Time	Stage	BM4	BM5	BM6	Top of Staff Gauge	Top of Logger Pipe	Staff Gauge	Review notes
E1(H)	2021-10-06	17:24	97.227	100.000	100.789	101.962	97.824	97.646	0.401	New benchmarks installed and staff gauge mount replaced. BM4 used as primary benchmark (old BM1).
E1(H)	2022-05-17	10:38	97.743	100.000	100.800	101.954	97.901	97.707	0.845	Survey affected by spring thaw.
E1(H)	2022-08-11	9:00	97.235	100.000	100.799	101.955	97.879	97.590	0.365	Staff gauge and logger pipe movement since October 2021.

Wolverine Creek survey data - E3(H)			Units in m							
Site ID	Date	Time	Stage	BM1	BM2	BM3	Top of Staff Gauge	Top of Metal Rod	Staff Gauge	Review notes
E3(H)	2020-05-12	9:55	99.385	100.000	100.536	100.480	99.731	-	0.656	Benchmark movement due to spring thaw.
E3(H)	2020-08-03	12:00	99.014	100.000	100.507	100.491	99.743	-	0.269	Benchmark 2 not surveyed.
E3(H)	2020-10-04	12:50	98.984	100.000	-	100.491	99.741	100.151	0.243	Benchmark 2 not surveyed.
E3(H)	2021-05-10	16:25	99.205	100.000	100.524	100.469	99.753	-	0.477	Possible station movement due to spring thaw.
E3(H)	2021-08-02	17:20	98.926	100.000	100.505	100.193	99.754	100.171	0.169	Benchmark 3 is no longer stable and needs replacement. Other benchmarks appear to be stable within the margin of error.
Site ID	Date	Time	Stage	BM1	BM4	BM5	Top of Staff Gauge	Top of Metal Rod	Staff Gauge	Review notes
E3(H)	2021-10-04	17:15	98.940	100.000	100.501	100.435	99.734	100.149	0.203	BM3 discontinued due to shore erosion. BM5 installed approximately 5 m downstream of BM3 on right downstream bank. Shifts >0.003 m detected on all stations
E3(H)	2022-05-16	18:20	99.380	100.000	100.541	100.445	99.759	100.176	0.620	Survey affected by spring thaw.
E3(H)	2022-08-09	15:00	98.953	100.000	100.507	100.465	99.767	100.184	0.182	Minimal movement since spring thaw.

Snowshoe Pit Lake survey data			Units in m							
Site ID	Date	Time	Stage	BM1	BM2	BM3	Top of Staff Gauge	Sensor Casing	Staff Gauge	Review notes
SL Upper	2020-05-11	14:20	98.13	100.000	99.604	100.464	-	-	-	Staff gauge in underwater; unable to find. Station elevations stable.
SL Upper	2020-08-04	9:24	96.13	100.000	99.604	100.466	97.346	-	-	Staff gauge is dry. Staff gauge is no longer level.
SL Upper	2020-10-06	10:20	96.569	100.000	99.603	100.464	97.546	-	0.028	Staff gauge wetted but was no longer upright; surveyed before and after straightening.
SL Upper	2021-05-11	16:35	98.015	100.000	99.604	100.465	97.546		1.429	Benchmarks remain stable.
SL Upper	2021-08-03	12:00	-	-	-	-	-	-	-	Two stagnant ponds of different elevations in Upper Snowshoe Lake; no survey conducted.
SL Upper	2021-10-06	11:50	93.909	100.000	99.606	100.470	97.556	-	-	Stage elevation 2.647 m below bottom of staff gauge. Shifts in BM3 and staff gauge.
SL Upper	2022-05-17	16:40	98.262	100.000	-	100.464	-	-	-	Unable to survey staff gauge (underwater) or BM2 (encased in ice).
SL Upper	2022-08-11	13:00	94.885	100.000	99.604	100.466	97.543	-	-	Water level well below staff gauge, unable to get a reading. Shift detected in top of staff gauge. All other benchmarks remain stable.

Discharge Measurement Method Legend

Measurement Method ID	Measurement Method	Measurement Description
ADV-MID	Mid Section Method - Acoustic Doppler Velocimeter	Cross-sectional velocity using an ADV, mid-section method.
SS	Brine Salt Slug Tracer	Salt dilution gauging using a brine salt slug.
V	Volumetric	Volumetric measurement obtained by filling a graduated contained at a culvert, pipe outlet or weir.
W	Weir	Measurement obtained by a rated structure (v-notch weir).
N	None	No measurement could be obtained.
SD	Dry Salt Slug Tracer	Salt dilution gauging using a dry salt slug.
HWM	High Water Mark - Indirect Method	Indirect method using high water mark in the slope-area calculation for estimating high discharges.
ADCP	Acoustic Doppler Current Profiler	Cross-sectional velocity using an ADCP, mid-section method.
SC	Constant Rate Salt Tracer	Salt dilution gauging using the constant rate method.
CM-MID	Mid Section Method - Current Meter	Cross-sectional velocity using a velocimeter (Swoffer or Pygmy AA)

Discharge Data Flag Legend

Discharge Data Flag	Discharge Data Flag Description
E	Estimated value
B	Backwater effects (ice related)
F	Instrument malfunction
M	Manual measurement
A	Automated measurement (logged)
ML	Missing length data
MD	Missing depth data
MW	Missing width data
O	Outside of measurement reporting range
S	Suspect data
X	Poor channel conditions for discharge measurement
MI	Missing Data
SH-L	Data logger Shift
SH-SG	Staff Gauge Shift
UR	Under review

Survey Data Flag Legend

Survey Flag	Survey Flag Description
S	Suspect data
MI	Missing data
UR	Under review
F	Instrument Malfunction
O	Outside measurement Accuracy (+/-0.003 m)
N	No survey conducted
B	Backwater effects (ice related)

APPENDIX D WATER QUALITY DATA TABLES

Water Quality Lab Analysis Summary

Class	Analyte	Units	CCME - Long term aquatic life	Detection limit	Sample ID	WR2200854-002	WR2200854-001-Rep	WR2200854-001-RPD	WR2200854-015	WR2200854-016-Rep	WR2200854-016-RPD	WR2200854-011	WR2200854-010	WR2200854-013	WR2200854-024	WR2200854-026	WR2200854-014	WR2200854-019	WR2200854-017	WR2200854-012	WR2200854-025
					Date Sampled	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-09	2022-08-09	2022-08-09	2022-08-09	2022-08-09	2022-08-10	2022-08-10	2022-08-09	2022-08-09	2022-08-09
					WQ Site ID	E1	E1	E1	E1(H)	E1(H)	E1(H)	E2	E3	E4	E7	E8	R1	R2	R3	R4	R6
							QC - Replicate Sample	QC - Relative Percent Difference		QC - Replicate Sample	QC - Relative Percent Difference										
In-situ																					
	Dissolved oxygen	mg/L	9.5	-		***8.06***	***8.06***	-	***8.89***	***8.89***	-	***8.51***	10.14	9.99	10.13	9.74	10.23	12.22	11.71	12.1	9.89
	Dissolved oxygen, percent	%	-	-		82	82	-	86.8	86.8	-	80.1	87.7	88.9	88.3	91.6	87.4	90.4	97.4	93.3	93.1
	Field pH	pH	6.5-9.0	-		7.99	7.99	-	8.11	8.11	-	7.87	8.35	7.93	7.86	8.04	8.45	***9.63***	8.3	8.25	8.12
	Field temperature	℃	-	-		16.2	16.2	-	14.2	14.2	-	12.9	9	10.2	9.3	12.2	8.5	3	7.4	4.4	12.7
	Field turbidity	NTU	-	-		1.11	1.11	-	1	1	-	0.5	0.75	1.5	3	1.79	1.92	2.04	0.57	0.38	1.5
	Specific conductivity	µS/cm	-	-		668	668	-	656	656	-	935	1035	1063	1054	295.3	1060	818.8	1128	839	287.8
	Oxidation/Reduction Potential	mV	-	-		174.6	174.6	-	220	220	-	41.8	99.7	179.6	197.6	222.4	-4.5	27.3	116.7	173.5	181.4
Physical																					
	Conductivity	µS/cm	-	0.1		644	641	1%	633	642	1%	896	980	1030	991	279	1040	811	846	810	271
	Dissolved Hardness (CaCO3)	mg/L	-	0.05		363	357	2%	357	359	1%	538	605	625	602	140	621	474	454	468	134
	Dissolved Organic Carbon (C)	mg/L	-	0.05		16	15.1	6%	17.3	17.7	2%	13.2	11.9	11.7	12.2	9.91	11.1	7.65	13.2	13.1	10
	Hardness (CaCO3)	mg/L	-	0.05		361	364	1%	356	356	0%	540	609	610	585	138	618	480	441	463	132
	pH	pH	6.5-9.0	0.01		8.16	8.15	0%	8.13	8.15	0%	8.05	8.32	8.1	8.17	7.99	8.17	8.23	8.05	8.25	8.01
	Total Suspended Solids	mg/L	-	4		4.1	6.5	<5DL	<1	6.8	<5DL	ND	4.1	ND	ND	ND	4.2	ND	ND	ND	ND
Nutrients																					
	Ammonia, Total (as N)	mg/L	Variable	0.0005		0.01	0.0136	**31%**	0.0231	0.027	16%	0.0178	0.0124	0.0078	0.0118	<0.0005	0.0224	0.0074	0.0122	0.0116	<0.0005
	Ammonia, Total (as N) - CCME long term guideline based on field pH & tem					*0.588*	*0.588*	-	*0.588*	*0.588*	-	*0.588*	*0.282*	*0.855*	*0.855*	*0.855*	*0.282*	*0.028*	*0.413*	*1.27*	*0.588*
	Dissolved phosphorus (P)	mg/L		0.005		<0.005	<0.005	<5DL	<0.005	<0.005	<5DL	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Nitrate (as N)	mg/L	3	0.0005		0.0457	0.0442	3%	0.0496	0.0375	**28%**	0.0733	0.102	0.0542	0.0342	0.0345	0.0771	<0.0005	<0.0005	0.076	0.0291
	Nitrite (as N)	mg/L	0.06	0.0001		<0.0001	<0.0001	<5DL	<0.0001	<0.0001	<5DL	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Sulfide, total (as H2S)	mg/L	-	0.0011		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulfide, total (as S)	mg/L	-	0.001		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total phosphorus (P)	mg/L	-	0.005		-	-	-	-	-	-	-	-	-	<0.005	<0.005	-	-	-	-	<0.005
Inorganics																					
	Bromide (Br)	mg/L		0.005		<0.005	<0.005	<5DL	<0.005	<0.005	<5DL	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Chloride (Cl)	mg/L	120	0.05		<0.05	<0.05	<5DL	<0.05	<0.05	<5DL	<0.05	<0.05	<0.05	<0.05	0.85	<0.05	<0.05	<0.05	<0.05	0.86
	Fluoride (F)	mg/L	0.12	0.002		<0.002	<0.002	<5DL	<0.002	<0.002	<5DL	0.116	***0.128***	0.12	0.113	0.101	<0.002	***0.176***	***0.14***	0.111	0.104
	Sulphate (SO4)	mg/L	-	0.03		228	231	1%	229	228	0%	369	395	413	392	68.7	430	305	323	270	65.8
Asbestos																					
	Actinolite	MFL	-	1		-	-	-	-	-	-	<AS	<AS	-	-	-	<AS	-	<AS	-	-
	Amosite	MFL	-	1		-	-	-	-	-	-	<AS	<AS	-	-	-	<AS	-	<AS	-	-
	Anthophyllite	MFL	-	1		-	-	-	-	-	-	<AS	<AS	-	-	-	<AS	-	<AS	-	-
	Chrysotile	MFL	-	1		-	-	-	-	-	-	<AS	<AS	-	-	-	<AS	-	<AS	-	-
	Crocidolite	MFL	-	1		-	-	-	-	-	-	<AS	<AS	-	-	-	<AS	-	<AS	-	-
	Total Asbestos (by TEM)	MFL	-	1		-	-	-	-	-	-	<AS	<AS	-	-	-	<AS	-	<AS	-	-
	Tremolite	MFL	-	1		-	-	-	-	-	-	<AS	<AS	-	-	-	<AS	-	<AS	-	-
Total metals																					
	Aluminum (Al)	mg/L	0.1	0.0003		0.0211	0.0206	2%	0.0454	0.0455	0%	0.0128	0.023	0.0126	0.0123	***0.116***	0.0192	0.0261	0.0194	0.0246	***0.112***
	Antimony (Sb)	mg/L	-	0.00001		0.00001	0.00034	0%	0.00032	0.00034	6%	0.00043	0.00113	0.0005	0.00034	0.00013	0.00019	0.00051	0.00027	0.00036	0.00012
	Arsenic (As)	mg/L	0.005	0.00001		0.00001	0.00088	0%	0.00078	0.00079	1%	0.00126	0.00148	0.0011	0.00086	0.00059	0.00061	0.0008	0.00065	0.00208	0.00059
	Barium (Ba)	mg/L	-	0.00001		0.00001	0.0488	2%	0.0507	0.0497	2%	0.0526	0.0633	0.0546	0.0593	0.0465	0.0573	0.0472	0.0708	0.0588	0.0463
	Beryllium (Be)	mg/L	-	0.000001		<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Bismuth (Bi)	mg/L	-	0.000001		<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Boron (B)	mg/L	1.5	0.001		0.012	0.013	8%	0.01	0.01	0%	0.046	0.11	0.08	0.06	<0.001	0.013	0.012	<0.001	<0.001	<0.001
	Cadmium (Cd)	mg/L	Variable	0.0000001		0.00004	0.0000348	14%	0.0000465	0.0000357	**26%**	0.0000647	0.0000188	0.0000526	0.0000612	0.0000217	0.0000628	0.0000278	0.0000195	0.000102	0.0000303
	Cadmium (Cd) - CCME long term guideline based on dissolved hardness					*0.00037*	*0.00037*	-	*0.00037*	*0.00037*	-	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.00021*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.000202*
	Calcium (Ca)	mg/L	-	0.005		69.9	71.3	2%	69.5	68.5	1%	92.8	94	99.4	96.1	33.4	124	73.6	85.5	97.7	32.4
	Cesium (Cs)	mg/L	-	0.000001		0.000099	0.000105	6%	0.000012	0.000011	9%	0.00123	0.000204	0.00125	0.000516	0.000019	0.000012	0.000016	<0.000001	0.000073	0.000018
	Chromium (Cr)	mg/L	0.001	0.00005		<0.00005	<0.00005	<5DL	0.00063	0.00054	15%	0.00054	***0.00102***	0.0006	0.00054	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	Chromium, hexavalent (Cr VI)	mg/L	0.001	0.00005		-	-	-	-	-	-	-	0.0005	-	-	-	-	-	-	-	-
	Chromium, trivalent (Cr III)	mg/L	0.0089	0.00005		-	-	-	-	-	-	-	0.00052	-	-	-	-	-	-	-	-
	Cobalt (Co)	mg/L	-	0.00001		0.00018	0.00022	20%	0.00037	0.00035	6%	0.00066	0.00019	0.00063	0.00104	0.00042	0.00045	0.00022	0.00026	0.00036	0.00037
	Copper (Cu)	mg/L	Variable	0.00005		0.00222	0.00221	1%	0.00267	0.00261	2%	0.00157	0.00147	0.00127	0.00142	0.00252	0.00136	0.00105	0.00125	0.00175	0.00254
	Copper (Cu) - CCME long term guideline based on dissolved hardness					*0.004*	*0.004*	-	*0.004*	*0.004*	-	*0.004*	*0.004*	*0.004*	*0.004*	*0.00315*	*0.004*	*0.004*	*0.004*	*0.004*	*0.00304*
	Iron (Fe)	mg/L	0.3	0.001		0.076	0.078	3%	0.2	0.178	12%	***0.387***	0.078	0.254	***0.48***	0.266	***0.34***	0.2	0.139	0.184	0.25
	Lead (Pb)	mg/L	Variable	0.000001		<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Lead (Pb) - CCME long term guideline based on dissolved hardness					*0.007*	*0.007*	-	*0.007*	*0.007*	-	*0.007*	*0.007*	*0.007*	*0.007*	*0.00488*	*0.007*	*0.007*	*0.007*	*0.007*	*0.00462*
	Lithium (Li)	mg/L	-	0.0001		0.0044	0.0045	2%	0.0043	0.0044	2%	0.0105	0.0076	0.0174	0.0172	0.0051	0.0054	0.0082	0.0036	0.0052	0.005
	Magnesium (Mg)	mg/L	-	0.0005		45.4	45.3	0%	44.2	44.8	1%	75	91	88	83.8	13.4	75	72	55.2	53.1	12.5
	Manganese (Mn)	mg/L	Variable	0.00001		0.0318	0.0384	19%	0.148	0.143	3%	0.108	0.0527	0.155	0.456	0.0273	***0.33***	0.0829	0.0924	0.0925	0.0222
	Manganese (Mn) - CCME long term guideline based on dissolved hardness					*0.46*	*0.46*	-	*0.29*	*0.29*	-	*0.48*	*0.3*	*0.48*	*0.48*	*0.39*	*0.3*	*0.14*	*0.3*	*0.3*	*0.26*
	Mercury (Hg)	mg/L	0.000026	0.0000001		<0.0000001	<0.0000001	<5DL	<0.0000001	<0.0000001	<5DL	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001
	Molybdenum (Mo)	mg/L	0.073	0.000001		0.00134	0.00135	1%	0.00117	0.00126	7%	0.00184	0.00188	0.00209	0.00174	0.000573	0.00179	0.000617	0.0013	0.00159	0.00054
	Nickel (Ni)	mg/L	Variable	0.00005		0.00671	0.00731	9%	0.0047	0.00452	4%	0.0179	0.0107	0.0219	0.0186	0.0033	0.00362	0.00351	0.00261	0.00943	0.00312
	Nickel (Ni) - CCME long term guideline based on dissolved hardness					*0.15*	*0.15*	-	*0.15*	*0.15*	-	*0.15*	*0.15*	*0.15*	*0.15*	*0.123*	*0.15*	*0.15*	*0.15*	*0.15*	*0.119*
	Potassium (K)	mg/L	-	0.005		0.732	0.734	0%	0.848	0.984	15%	1.06	1.15	1.28	1.39	1.35	0.891	0.997	0.956	0.662	1.36
	Rubidium (Rd)	mg/L	-	0.00002		0.00032	0.00042	**27%**	0.00028	0.00027	4%	0.00184	0.00084	0.00245	0.00215	0.0014	0.00032	0.00042	0.00022	0.00037	0.00147
	Selenium (Se)	mg/L	0.001	0.000001		0.000974	0.001	3%	***0.00119***	***0.0012***	1%	***0.00116***	0.000974	0.000866	0.000589	0.000184	0.000922	0.0004	***0.00242***	***0.00147***	0.000224
	Silicon (Si)	mg/L	-	0.01		3.93	4.01	2%	4.14	4.19	1%	4.7	5.55	4.84	4.96	4.89	4.79	5.61	5.3	5.33	4.87
	Silver (Ag)	mg/L	0.00025	0.000001		<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Sodium (Na)	mg/L	-	0.005		3.46	3.53	2%	3.45	3.6	4%	4.84	6.29	6.25	6.2	5.55	5.92	3.66	3.91	6.07	5.62
	Strontium (Sr)	mg/L	-	0.00002		0.372	0.385	3%	0.35	0.361	3%	0.559	0.545	0.67	0.658	0.211	0.632	0.43	0.404	0.558	0.203
	Sulphur (S)	mg/L	-	0.05		85.8	84.9	1%	80.8	83.2	3%	135	147	147	152	24.8	156	108	97.9	102	23.5
	Tellurium (Te)	mg/L	-	0.00002		<0.00002	<0.00002	<5DL	<0.00002	<0.00002	<5DL	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
	Thallium (Tl)	mg/L	0.0008	0.000001		0.000017	0.000017	0%	<0.000001	<0.000001	<5DL	0.000027	<0.000001	0.000019	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Thorium (Th)	mg/L	-	0.00001		<0.00001	<0.00001	<5DL	<0.00001	0.00012	<5DL	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
	Tin (Sn)	mg/L	-	0.00001		<0.00001	<0.00001	<5DL	<0.00001	<0.00001	<5DL	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
	Titanium (Ti)	mg/L	-	0.00003		0.0004	<0.00003	<5DL	0.00057	0.00073	**25%**	<0.00003	0.00062	<0.00003	<0.00003	0.00156	0.00047	0.00066	0.0005	0.00065	0.00142
	Tungsten (W)	mg/L	-	0.00001		<0.00001	<0.00001	<5DL	<0.00001	<0.00001	<5DL	<0.00001	0.00042	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
	Uranium (U)	mg/L	0.015	0.000001		0.00288	0.00283	2%	0.00319	0.0032	0%	0.00276	0.00658	0.00352	0.00328	0.00135	0.00532	0.00598	0.00545	0.00564	0.00134
	Vanadium (V)	mg/L	-	0.00005		<0.00005	<0.00005	<5DL	<0.00005	<0.00005	<5DL	<0.00005	0.00061	<0.00005	<0.00005	0.00087	<0.00005	<0.00005	<0.00005	<0.00005	0.00089
	Zinc (Zn)	mg/L	-	0.0003		<0.0003	<0.0003	<5DL	<0.0003	<0.0003	<5DL	<0.0003	<0.0003	<0.0003	<0.0003	0.004	<0.0003	<0.0003	<0.0003	<0.0003	0.0036
	Zirconium (Zr)	mg/L	-	0.00002		0.00063	0.00062	2%	0.00073	0.00077	5%	0.0005	0.00042	0.0009	0.00121	0.00043	0.00054	0.00038	0.00035	0.00072	0.00043

Water Quality Lab Analysis Summary

Class	Analyte	Units	CCME - Long term aquatic life	Sample ID	WR2200854-002	WR2200854-001-Rep	WR2200854-001-RPD	WR2200854-015	WR2200854-016-Rep	WR2200854-016-RPD	WR2200854-011	WR2200854-010	WR2200854-013	WR2200854-024	WR2200854-026	WR2200854-014	WR2200854-019	WR2200854-017	WR2200854-012	WR2200854-025
				Date Sampled	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-09	2022-08-09	2022-08-09	2022-08-09	2022-08-09	2022-08-10	2022-08-10	2022-08-09	2022-08-09	2022-08-09
				WQ Site ID	E1	E1	E1	E1(H)	E1(H)	E1(H)	E2	E3	E4	E7	E8	R1	R2	R3	R4	R6
				Detection limit		QC - Replicate Sample	QC - Relative Percent Difference		QC - Replicate Sample	QC - Relative Percent Difference										
Dissolved metals																				
	Aluminum (Al)	mg/L	-	0.0001	0.0173	0.0166	4%	0.03	0.0298	1%	0.0079	0.0088	0.0044	0.0047	0.0746	0.0067	0.0127	0.01	0.011	0.0741
	Antimony (Sb)	mg/L	-	0.00001	0.00031	0.00031	0%	0.00031	0.0003	3%	0.0004	0.00102	0.00046	0.00033	0.00011	0.0002	0.0005	0.00024	0.00034	0.0001
	Arsenic (As)	mg/L	-	0.00001	0.00075	0.0008	7%	0.0007	0.00071	1%	0.00113	0.00131	0.00096	0.00063	0.00048	0.00046	0.00072	0.00063	0.00186	0.00048
	Barium (Ba)	mg/L	-	0.00001	0.0484	0.0473	2%	0.0485	0.0497	2%	0.0516	0.0602	0.0537	0.0611	0.0453	0.0549	0.0464	0.0721	0.0538	0.0449
	Beryllium (Be)	mg/L	-	0.000001	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Bismuth (Bi)	mg/L	-	0.000001	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Boron (B)	mg/L	-	0.001	0.012	0.012	0%	0.01	<0.001	<5DL	0.045	0.107	0.06	0.079	<0.001	0.012	0.011	<0.001	<0.001	<0.001
	Cadmium (Cd)	mg/L	-	0.0000001	0.0000337	0.0000365	8%	0.0000383	0.0000327	16%	0.0000625	0.0000198	0.0000533	0.0000569	0.000023	0.0000548	0.0000297	0.0000154	0.0000946	0.0000258
	Calcium (Ca)	mg/L	-	0.005	71.3	69.2	3%	69.6	70.3	1%	91.2	96.5	99	104	34.2	125	71	83.9	99.3	33.2
	Cesium (Cs)	mg/L	-	0.000001	0.000096	0.000096	0%	<0.000001	<0.000001	<5DL	0.0011	0.000181	0.00118	0.000505	0.000014	<0.000001	0.000012	<0.000001	0.000064	0.000012
	Chromium (Cr)	mg/L	-	0.00005	<0.00005	<0.00005	<5DL	<0.00005	<0.00005	<5DL	<0.00005	0.00082	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	Chromium, hexavalent (Cr VI)	mg/L	-	0.00005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium, trivalent (Cr III)	mg/L	-	0.00005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cobalt (Co)	mg/L	-	0.00001	0.00016	0.00019	17%	0.00033	0.00032	3%	0.00062	0.00016	0.00062	0.00099	0.00032	0.00045	0.00019	0.00024	0.00031	0.00032
	Copper (Cu)	mg/L	-	0.00002	0.00213	0.00204	4%	0.00245	0.00242	1%	0.00147	0.00136	0.0013	0.00126	0.00223	0.00129	0.001	0.00112	0.00167	0.00224
	Iron (Fe)	mg/L	-	0.001	0.057	0.057	0%	0.11	0.111	1%	0.347	0.024	0.168	0.149	0.153	0.093	0.142	0.077	0.125	0.15
	Lead (Pb)	mg/L	-	0.000001	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Lithium (Li)	mg/L	-	0.0001	0.0041	0.0042	2%	0.004	0.004	0%	0.0099	0.007	0.0168	0.0171	0.0052	0.0053	0.0076	0.0035	0.0054	0.0051
	Magnesium (Mg)	mg/L	-	0.0005	44.9	44.8	0%	44.6	44.5	0%	75.3	88.5	91.8	83.1	13.2	75.1	72.1	59.4	53.4	12.4
	Manganese (Mn)	mg/L	Variable	0.00001	0.0239	0.0284	17%	0.132	0.131	1%	0.103	0.0419	0.146	0.45	0.0208	***0.319***	0.08	0.0906	0.0864	0.0168
	Manganese (Mn) - CCME long term guideline based on dissolved hardness				*0.46*	*0.46*	-	*0.29*	*0.29*	-	*0.48*	*0.3*	*0.48*	*0.48*	*0.39*	*0.3*	*0.14*	*0.3*	*0.3*	*0.26*
	Mercury (Hg)	mg/L	-	0.0000005	<0.0000005	<0.0000005	<5DL	<0.0000005	<0.0000005	<5DL	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005
	Molybdenum (Mo)	mg/L	-	0.000001	0.00126	0.00124	2%	0.00123	0.00113	9%	0.00176	0.00166	0.00192	0.00169	0.000538	0.00174	0.000601	0.00126	0.00148	0.000539
	Nickel (Ni)	mg/L	-	0.00005	0.00658	0.00713	8%	0.00432	0.00425	2%	0.0176	0.0102	0.0216	0.0182	0.00299	0.0035	0.00344	0.00262	0.00874	0.00282
	Potassium (K)	mg/L	-	0.005	0.63	0.631	0%	0.626	0.623	1%	0.928	0.948	1.13	1.21	1.16	0.775	0.857	0.81	0.551	1.18
	Rubidium (Rd)	mg/L	-	0.00002	0.00034	0.00034	0%	0.00026	0.00024	8%	0.00166	0.00077	0.00251	0.002	0.0014	0.00028	0.00038	<0.00002	0.00036	0.0013
	Selenium (Se)	mg/L	-	0.000001	0.00103	0.000968	6%	0.0011	0.00117	6%	0.00118	0.00101	0.000879	0.000601	0.000176	0.000923	0.000359	0.00191	0.00139	0.00017
	Silicon (Si)	mg/L	-	0.005	3.57	3.71	4%	3.9	3.92	1%	4.27	5.04	4.61	4.39	4.48	4.71	5.44	5.03	5.06	4.58
	Silver (Ag)	mg/L	-	0.000001	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<5DL	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Sodium (Na)	mg/L	-	0.005	3.39	3.36	1%	3.23	3.2	1%	4.54	5.86	6.08	6.12	5.18	5.36	3.59	3.82	5.44	5.36
	Strontium (Sr)	mg/L	-	0.00002	0.338	0.338	0%	0.35	0.342	2%	0.514	0.493	0.638	0.644	0.2	0.626	0.414	0.39	0.535	0.188
	Sulphur (S)	mg/L	-	0.05	78.8	78.5	0%	78.7	79.9	2%	127	136	142	133	22.3	153	107	102	94.6	22.3
	Tellurium (Te)	mg/L	-	0.00002	<0.00002	<0.00002	<5DL	<0.00002	<0.00002	<5DL	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
	Thallium (Tl)	mg/L	-	0.000001	0.000016	0.000018	12%	<0.000001	<0.000001	<5DL	0.000031	<0.000001	0.000019	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Thorium (Th)	mg/L	-	0.00001	<0.00001	<0.00001	<5DL	<0.00001	<0.00001	<5DL	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
	Tin (Sn)	mg/L	-	0.00001	<0.00001	<0.00001	<5DL	<0.00001	<0.00001	<5DL	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
	Titanium (Ti)	mg/L	-	0.00003	<0.00003	<0.00003	<5DL	0.00035	0.00034	3%	<0.00003	<0.00003	<0.00003	<0.00003	0.00047	<0.00003	0.0003	0.00031	<0.00003	0.00045
	Tungsten (W)	mg/L	-	0.00001	<0.00001	<0.00001	<5DL	<0.00001	<0.00001	<5DL	<0.00001	0.00042	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
	Uranium (U)	mg/L	-	0.000001	0.00277	0.0027	3%	0.00298	0.00298	0%	0.00267	0.00591	0.00327	0.00328	0.00132	0.00488	0.00578	0.00588	0.00523	0.0013
	Vanadium (V)	mg/L	-	0.00005	<0.00005	<0.00005	<5DL	<0.00005	<0.00005	<5DL	<0.00005	<0.00005	<0.00005	<0.00005	0.00062	<0.00005	<0.00005	<0.00005	<0.00005	0.0006
	Zinc (Zn)	mg/L	Variable	0.0001	<0.0001	<0.0001	<5DL	<0.0001	<0.0001	<5DL	<0.0001	<0.0001	<0.0001	0.0016	0.0029	<0.0001	<0.0001	0.0015	0.0022	0.0028
	Zinc (Zn) - CCME long term guideline based on dissolved hardness, DOC &				*0.121*	*0.117*	-	*0.112*	*0.113*	-	*0.136*	*0.105*	*0.123*	*0.132*	*0.0391*	*0.102*	*0.0883*	*0.11*	*0.109*	*0.0352*
	Zirconium (Zr)	mg/L	-	0.00002	0.00054	0.00056	4%	0.0007	0.00066	6%	0.00047	0.00036	0.00082	0.00101	0.00039	0.00051	0.00037	0.00034	0.00069	0.00038
Aggregate organics																				
	Biochemical oxygen demand	mg/L	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exceedance colour key:
Exceeds CCME - Long term aquatic life
Replicate exceeded 20% relative percent difference (RPD)
<5DL Less than 5 times detection limit, RPD not calculated

Water Quality Lab Analysis Summary

				Sample ID	WR2200854-003	WR2200854-018	WR2200854-021	WR2200854-023	WR2200854-004	WR2200854-008	WR2200854-006	WR2200854-007	WR2200854-009	WR2200854-005	WR2200854-028	WR2200854-027	WR2200854-029	WR2200854-020	WR2200854-022
				Date Sampled	2022-08-11	2022-08-10	2022-08-10	2022-08-09	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-10	2022-08-10	2022-08-10	2022-08-10	2022-08-11
				WQ Site ID	R7	R8	R9	R11	SL	GWCC-1	GWCC-2	GWCC-3	GWCC-4	GWCC-5	HL3-T	HL3-M	HL3-B	Field Blank	Travel Blank
Class	Analyte	Units	CCME - Long term aquatic life	Detection limit														QC - Blank	QC - Blank
In-situ																			
	Dissolved oxygen	mg/L	9.5	-	10.93	12.52	11.28	11.96	10.47	***5.03***	***6.83***	***4.32***	***2.5***	***1.31***	***8.11***	***0.24***	***0.42***	-	-
	Dissolved oxygen, percent	%	-	-	81.5	93	86	92.7	94.9	37.9	54.4	37.1	22.6	11.6	81.5	1.7	2.7	-	-
	Field pH	pH	6.5-9.0	-	7.67	8.21	8.52	8.14	8.42	7.64	7.71	7.55	7.65	8.15	7.91	7.03	6.99	-	-
	Field temperature	℃	-	-	3.9	2.7	4	4.6	11	3.5	5.6	8.7	10.8	9.7	14.7	1.9	1.1	-	-
	Field turbidity	NTU	-	-	101	59	1.25	2.11	0.88	1.45	0.89	1.39	0.4	0.87	0.56	1.2	0.71	-	-
	Specific conductivity	µS/cm	-	-	249.1	395.9	574.7	691.1	1774	2690	1988	1323	945	954	680	1205	1589	-	-
	Oxidation/Reduction Potential	mV	-	-	111.6	114.6	3.5	130.7	47.5	46.6	24	47.1	10	-77.1	44.2	-90.4	-29.3	-	-
Physical																			
	Conductivity	µS/cm	-	0.1	243	381	558	656	1690	2550	1890	1270	901	899	622	1080	1960	<0.1	<0.1
	Dissolved Hardness (CaCO3)	mg/L	-	0.05	133	194	306	357	1110	1840	1290	811	546	532	355	673	1360	<0.05	-
	Dissolved Organic Carbon (C)	mg/L	-	0.05	30.5	18.3	20.5	17.1	7.02	5.88	7.4	9.4	10.1	8.22	17.3	19.6	31.2	<0.05	-
	Hardness (CaCO3)	mg/L	-	0.05	136	194	309	364	1150	1820	1330	809	546	517	352	651	1350	<0.05	<0.05
	pH	pH	6.5-9.0	0.01	8.05	7.86	7.91	8.07	8.27	7.73	7.88	7.82	7.78	7.68	8.15	7.86	7.66	***5.62***	***5.53***
	Total Suspended Solids	mg/L	-	4	22	41	ND	ND	4.6	11	5.3	4.7	ND	ND	ND	8.6	65	ND	<3.0
Nutrients																			
	Ammonia, Total (as N)	mg/L	Variable	0.0005	0.0681	0.0296	0.0098	0.0066	0.0077	0.0164	<0.0005	0.0075	0.0064	0.016	0.0255	0.928	4.36	<0.0005	<0.0005
	Ammonia, Total (as N) - CCME long term guideline based on field pH & tem				*3.98*	*1.27*	*0.413*	*1.27*	*0.282*	*3.98*	*3.98*	*2.68*	*2.68*	*0.855*	*0.588*	*19*	*19*	-	-
	Dissolved phosphorus (P)	mg/L		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.768	<0.005	-
	Nitrate (as N)	mg/L	3	0.0005	0.056	0.0179	0.086	0.0628	<0.0005	0.651	0.422	0.206	0.0867	<0.0005	0.121	<0.0005	<0.0005	<0.0005	<0.0005
	Nitrite (as N)	mg/L	0.06	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Sulfide, total (as H2S)	mg/L	-	0.0011	-	-	-	-	-	-	-	-	-	-	<0.0011	0.102	0.101	-	-
	Sulfide, total (as S)	mg/L	-	0.001	-	-	-	-	-	-	-	-	-	-	<0.001	0.096	0.095	-	-
	Total phosphorus (P)	mg/L	-	0.005	-	-	<0.005	<0.005	-	-	-	-	-	-	<0.005	<0.005	0.866	-	<0.005
Inorganics																			
	Bromide (Br)	mg/L		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Chloride (Cl)	mg/L	120	0.05	<0.05	0.56	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Fluoride (F)	mg/L	0.12	0.002	0.079	0.087	0.088	0.112	<0.002	<0.002	<0.002	***0.126***	***0.121***	***0.134***	<0.002	***0.137***	<0.002	<0.002	<0.002
	Sulphate (SO4)	mg/L	-	0.03	50.3	134	192	256	886	1520	1020	587	356	300	225	363	764	<0.03	<0.03
Asbestos																			
	Actinolite	MFL	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Amosite	MFL	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Anthophyllite	MFL	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chrysotile	MFL	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Crocidolite	MFL	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Asbestos (by TEM)	MFL	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tremolite	MFL	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total metals																			
	Aluminum (Al)	mg/L	0.1	0.0003	***0.803***	***0.978***	0.0279	0.0434	0.0101	0.0165	<0.0003	<0.0003	0.0048	0.0054	0.0358	0.0739	0.0987	<0.0003	<0.0003
	Antimony (Sb)	mg/L	-	0.00001	0.00026	0.00137	0.00018	0.0002	0.00292	0.00134	0.00108	0.00085	0.00096	0.0002	0.00033	0.00014	<0.00001	<0.00001	<0.00001
	Arsenic (As)	mg/L	0.005	0.00001	0.00179	0.00119	0.00059	0.00053	***0.0177***	0.00237	0.00161	0.00095	0.00126	0.00172	0.00084	0.00433	***0.0109***	<0.00001	<0.00001
	Barium (Ba)	mg/L	-	0.00001	0.0876	0.0869	0.0661	0.0515	0.0274	0.021	0.0225	0.0341	0.0375	0.0562	0.0505	0.13	0.225	<0.00001	<0.00001
	Beryllium (Be)	mg/L	-	0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Bismuth (Bi)	mg/L	-	0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Boron (B)	mg/L	1.5	0.001	<0.001	<0.001	<0.001	<0.001	0.056	0.256	0.149	0.087	0.06	0.03	0.011	0.014	0.024	<0.001	<0.001
	Cadmium (Cd)	mg/L	Variable	0.0000001	0.0000465	0.000223	0.0000271	0.000028	0.0000275	0.000214	0.000142	0.0000828	0.0000553	0.0000708	0.0000364	0.0000276	<0.0000001	<0.0000001	<0.0000001
	Cadmium (Cd) - CCME long term guideline based on dissolved hardness				*0.000201*	*0.000275*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	*0.00037*	-	-
	Calcium (Ca)	mg/L	-	0.005	30.4	47.2	71.3	77.1	239	206	172	126	94.4	115	68.1	129	274	<0.005	<0.005
	Cesium (Cs)	mg/L	-	0.000001	0.000061	0.000406	<0.000001	<0.000001	0.00612	0.0144	0.00756	0.00412	0.0061	0.00018	<0.000001	0.000028	0.00003	<0.000001	<0.000001
	Chromium (Cr)	mg/L	0.001	0.00005	***0.00249***	***0.00268***	0.00053	0.00071	***0.00146***	***0.00317***	***0.00146***	0.00059	<0.00005	<0.00005	<0.00005	***0.00113***	***0.00227***	<0.00005	<0.00005
	Chromium, hexavalent (Cr VI)	mg/L	0.001	0.00005	<0.00005	<0.00005	-	-	0.001	***0.0028***	***0.0013***	-	-	-	-	<0.00005	<0.00005	-	-
	Chromium, trivalent (Cr III)	mg/L	0.0089	0.00005	0.00249	0.00268	-	-	<0.00005	<0.00005	<0.00005	-	-	-	-	0.00113	0.00227	-	-
	Cobalt (Co)	mg/L	-	0.00001	0.00105	0.0012	0.00019	0.00013	0.00023	<0.00001	<0.00001	<0.00001	<0.00001	0.00133	0.00035	0.00255	0.00091	<0.00001	<0.00001
	Copper (Cu)	mg/L	Variable	0.00005	***0.00475***	***0.00612***	0.00265	0.0022	0.00082	0.00161	<0.00005	0.00109	0.00124	<0.00005	0.00263	0.00071	<0.00005	<0.00005	<0.00005
	Copper (Cu) - CCME long term guideline based on dissolved hardness				*0.00302*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	-	-
	Iron (Fe)	mg/L	0.3	0.001	***2.08***	***1.98***	***0.452***	0.112	0.042	0.032	<0.001	<0.001	<0.001	***0.745***	0.156	***6.07***	***18.6***	<0.001	<0.001
	Lead (Pb)	mg/L	Variable	0.000001	0.00039	0.000911	<0.000001	<0.000001	<0.000001	0.000101	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	0.000361	<0.000001	<0.000001	<0.000001
	Lead (Pb) - CCME long term guideline based on dissolved hardness				*0.00457*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	-	-
	Lithium (Li)	mg/L	-	0.0001	<0.0001	0.0014	<0.0001	<0.0001	0.0112	0.0681	0.0215	0.0102	0.0082	0.008	0.0042	0.0107	0.0144	<0.0001	<0.0001
	Magnesium (Mg)	mg/L	-	0.0005	14.5	18.5	31.8	41.6	135	318	219	120	75.4	55.8	44.3	79.9	162	<0.0005	<0.0005
	Manganese (Mn)	mg/L	Variable	0.00001	0.288	0.16	0.108	0.0131	0.0436	0.00283	<0.00001	0.0002	0.00023	0.257	0.147	***3.69***	***7.08***	<0.00001	<0.00001
	Manganese (Mn) - CCME long term guideline based on dissolved hardness				*0.5*	*0.27*	*0.26*	*0.29*	*0.32*	*0.72*	*0.72*	*0.72*	*0.65*	*0.3*	*0.46*	*1.2*	*1.2*	-	-
	Mercury (Hg)	mg/L	0.000026	0.0000001	<0.0000001	0.0000134	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001	<0.0000001
	Molybdenum (Mo)	mg/L	0.073	0.000001	0.00116	0.00157	0.00131	0.00139	0.00231	0.0027	0.0028	0.00268	0.00251	0.0023	0.0013	0.000695	0.000494	<0.000001	<0.000001
	Nickel (Ni)	mg/L	Variable	0.00005	0.00473	0.00698	0.00255	0.0023	0.0184	0.0708	0.0458	0.0336	0.0362	0.033	0.00448	0.0037	0.00196	<0.00005	<0.00005
	Nickel (Ni) - CCME long term guideline based on dissolved hardness				*0.119*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	-	-
	Potassium (K)	mg/L	-	0.005	0.256	0.329	0.483	0.474	1.62	3.85	2.35	1.64	1.33	0.873	0.741	1.42	2.78	<0.005	<0.005
	Rubidium (Rd)	mg/L	-	0.00002	0.00075	0.00178	<0.00002	<0.00002	0.00481	0.0162	0.00749	0.0035	0.00351	0.00206	0.00025	0.0009	0.00119	<0.00002	<0.00002
	Selenium (Se)	mg/L	0.001	0.000001	0.000323	***0.00105***	***0.00157***	0.000933	***0.0104***	***0.00529***	***0.00355***	***0.00189***	0.000962	0.000253	***0.00112***	0.000945	0.000807	<0.000001	<0.000001
	Silicon (Si)	mg/L	-	0.01	6.92	7.44	4.99	5.82	5.83	6.69	5.98	5.66	6.42	5.8	4.19	7.16	10.3	<0.01	<0.01
	Silver (Ag)	mg/L	0.00025	0.000001	0.000014	0.000059	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Sodium (Na)	mg/L	-	0.005	2.04	5.5	2.72	7	3.73	17.5	8.68	5.17	4.02	3.86	3.35	7.09	10.1	<0.005	<0.005
	Strontium (Sr)	mg/L	-	0.00002	0.094	0.189	0.276	0.382	1.18	1.89	1.05	0.659	0.502	0.652	0.379	0.76	1.63	<0.00002	<0.00002
	Sulphur (S)	mg/L	-	0.05	17.7	47.2	71.1	96.6	325	547	382	216	131	108	84	134	291	<0.05	<0.05
	Tellurium (Te)	mg/L	-	0.00002	<0.00002	<0.00002	<0.00002	<0.00002	0.00026	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
	Thallium (Tl)	mg/L	0.0008	0.000001	<0.000001	0.000037	<0.000001	<0.000001	0.00001	0.000074	0.000056	0.000064	0.000069	0.000025	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001
	Thorium (Th)	mg/L	-	0.00001	0.00014	0.00024	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00014	<0.00001	<0.00001	<0.00001
	Tin (Sn)	mg/L	-	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
	Titanium (Ti)	mg/L	-	0.00003	<0.00003	0.0217	0.00094	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.00059	0.00317	0.00694	<0.00003	<0.00003
	Tungsten (W)	mg/L	-	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00011	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
	Uranium (U)	mg/L	0.015	0.000001	0.000224	0.000318	0.000739	0.00233	0.00452	0.00699	0.00384	0.00234	0.00153	0.00227	0.00305	0.00395	0.00623	<0.000001	<0.000001
	Vanadium (V)	mg/L	-	0.00005	0.00358	0.00409	0.00055	0.00054	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00322	0.00562	<0.00005	<0.00005
	Zinc (Zn)	mg/L	-	0.0003	0.0032	0.0115	<0.0003	<0.0003	<0.0003	0.0122	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.482	<0.0003	<0.0003	<0.0003
	Zirconium (Zr)	mg/L	-	0.00002	0.00088	<0.00002	0.00075	0.00081	<0.00002	<0.00002	<0.00002	0.00025	0.00025	0.00026	0.00079	0.00228	0.0046	<0.00002	<0.00002

Water Quality Lab Analysis Summary

					Sample ID	WR2200854-003	WR2200854-018	WR2200854-021	WR2200854-023	WR2200854-004	WR2200854-008	WR2200854-006	WR2200854-007	WR2200854-009	WR2200854-005	WR2200854-028	WR2200854-027	WR2200854-029	WR2200854-020	WR2200854-022
					Date Sampled	2022-08-11	2022-08-10	2022-08-10	2022-08-09	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-11	2022-08-10	2022-08-10	2022-08-10	2022-08-10	2022-08-11
					WQ Site ID	R7	R8	R9	R11	SL	GWCC-1	GWCC-2	GWCC-3	GWCC-4	GWCC-5	HL3-T	HL3-M	HL3-B	Field Blank	Travel Blank
Class	Analyte	Units	CCME - Long term aquatic life	Detection limit															QC - Blank	QC - Blank
Dissolved metals																				
	Aluminum (Al)	mg/L	-	0.0001		0.0712	0.0288	0.0219	0.0214	0.0015	<0.0001	<0.0001	<0.0001	0.0014	0.0017	0.0309	0.0656	0.0953	<0.0001	-
	Antimony (Sb)	mg/L	-	0.00001		0.00023	0.00094	0.00016	0.00018	0.00265	0.00123	0.00101	0.00084	0.00089	0.00021	0.0003	0.0001	<0.00001	<0.00001	-
	Arsenic (As)	mg/L	-	0.00001		0.00132	0.00044	0.00051	0.00044	0.0169	0.00223	0.00142	0.0009	0.0012	0.00125	0.00074	0.00413	0.0104	<0.00001	-
	Barium (Ba)	mg/L	-	0.00001		0.0623	0.0577	0.0642	0.051	0.0267	0.0207	0.0227	0.0343	0.0361	0.0539	0.0501	0.134	0.224	<0.00001	-
	Beryllium (Be)	mg/L	-	0.000001		<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	-
	Bismuth (Bi)	mg/L	-	0.000001		<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	-
	Boron (B)	mg/L	-	0.001		<0.001	<0.001	<0.001	<0.001	0.051	0.256	0.136	0.084	0.057	0.028	0.01	0.014	0.024	<0.001	-
	Cadmium (Cd)	mg/L	-	0.0000001		0.0000163	0.000113	0.0000254	0.0000297	0.0000219	0.000214	0.000135	0.0000933	0.0000531	0.0000734	0.0000347	0.000006	<0.0000001	<0.0000001	-
	Calcium (Ca)	mg/L	-	0.005		29.5	47.1	72.8	75.6	235	214	176	127	91.2	121	70.1	133	284	<0.005	-
	Cesium (Cs)	mg/L	-	0.000001		<0.000001	<0.000001	<0.000001	<0.000001	0.00545	0.0138	0.00664	0.00403	0.00569	0.000208	<0.000001	0.000025	0.000026	<0.000001	-
	Chromium (Cr)	mg/L	-	0.00005		0.00113	0.00069	0.0005	0.00059	0.00127	0.00283	0.00119	0.00054	<0.00005	<0.00005	<0.00005	0.00104	0.00226	<0.00005	-
	Chromium, hexavalent (Cr VI)	mg/L	-	0.00005		<0.00005	-	-	-	0.001	0.0028	0.0013	-	-	-	-	<0.00005	<0.00005	-	-
	Chromium, trivalent (Cr III)	mg/L	-	0.00005		0.00113	-	-	-	<0.00005	<0.00005	<0.00005	-	-	-	-	0.00104	0.00226	-	-
	Cobalt (Co)	mg/L	-	0.00001		0.00056	0.00053	0.00018	0.0001	0.00019	<0.00001	<0.00001	<0.00001	<0.00001	0.00138	0.00033	0.00243	0.00086	<0.00001	-
	Copper (Cu)	mg/L	-	0.00002		0.00323	0.00232	0.00244	0.00204	0.00078	0.00084	0.00098	0.00105	0.00118	0.00021	0.0024	0.00021	<0.00002	<0.00002	-
	Iron (Fe)	mg/L	-	0.001		0.934	0.132	0.404	0.075	0.015	<0.001	<0.001	<0.001	<0.001	0.408	0.113	5.97	18.1	<0.001	-
	Lead (Pb)	mg/L	-	0.000001		0.000066	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	0.000069	<0.000001	<0.000001	-
	Lithium (Li)	mg/L	-	0.0001		<0.0001	<0.0001	<0.0001	<0.0001	0.0098	0.0636	0.0165	0.0094	0.0075	0.0074	0.0042	0.0105	0.0139	<0.0001	-
	Magnesium (Mg)	mg/L	-	0.0005		14.5	18.5	30.3	40.9	128	316	206	120	77.4	55.7	43.7	82.8	158	<0.0005	-
	Manganese (Mn)	mg/L	Variable	0.00001		0.263	0.135	0.0998	0.0116	0.0354	<0.00001	<0.00001	0.0001	0.00022	0.272	0.136	***3.71***	***6.99***	<0.00001	-
	Manganese (Mn) - CCME long term guideline based on dissolved hardness					*0.5*	*0.27*	*0.26*	*0.29*	*0.32*	*0.72*	*0.72*	*0.72*	*0.65*	*0.3*	*0.46*	*1.2*	*1.2*	-	-
	Mercury (Hg)	mg/L	-	0.0000005		<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	<0.0000005	-
	Molybdenum (Mo)	mg/L	-	0.000001		0.000972	0.000903	0.00121	0.0012	0.00206	0.00269	0.00274	0.00255	0.00233	0.0023	0.00121	0.000592	0.000452	0.000062	-
	Nickel (Ni)	mg/L	-	0.00005		0.00357	0.00461	0.00242	0.00225	0.018	0.0713	0.0427	0.0336	0.0361	0.0376	0.00429	0.00356	0.00177	<0.00005	-
	Potassium (K)	mg/L	-	0.005		0.161	0.069	0.398	0.413	1.34	2.99	1.91	1.38	1.18	0.757	0.627	1.35	2.44	<0.005	-
	Rubidium (Rd)	mg/L	-	0.00002		<0.00002	<0.00002	<0.00002	<0.00002	0.00446	0.0157	0.00633	0.0034	0.00334	0.00209	0.00027	0.00088	0.0011	<0.00002	-
	Selenium (Se)	mg/L	-	0.000001		0.00029	0.000798	0.00141	0.000859	0.0101	0.00488	0.00337	0.00174	0.00088	0.000235	0.00118	0.00105	0.00067	<0.000001	-
	Silicon (Si)	mg/L	-	0.005		5.25	5.54	4.58	5.47	5.31	6.07	5.36	5.27	5.85	5.33	3.93	6.8	9.73	<0.005	-
	Silver (Ag)	mg/L	-	0.000001		<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	<0.000001	-
	Sodium (Na)	mg/L	-	0.005		2	5.26	2.51	6.66	3.44	16.1	7.38	4.86	3.88	3.8	3.25	6.7	9.37	<0.005	-
	Strontium (Sr)	mg/L	-	0.00002		0.0861	0.178	0.253	0.346	1.03	1.84	0.939	0.646	0.485	0.612	0.358	0.713	1.52	<0.00002	-
	Sulphur (S)	mg/L	-	0.05		17.1	46.4	65.2	88.8	303	519	342	206	123	105	76.7	125	274	<0.05	-
	Tellurium (Te)	mg/L	-	0.00002		<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	-
	Thallium (Tl)	mg/L	-	0.000001		<0.000001	<0.000001	<0.000001	<0.000001	0.00001	0.000068	0.000059	0.00007	0.000068	0.000032	<0.000001	<0.000001	<0.000001	<0.000001	-
	Thorium (Th)	mg/L	-	0.00001		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00013	<0.00001	<0.00001	-
	Tin (Sn)	mg/L	-	0.00001		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-
	Titanium (Ti)	mg/L	-	0.00003		0.0023	0.00063	0.00076	0.00047	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.00042	0.00299	0.00669	<0.00003	-
	Tungsten (W)	mg/L	-	0.00001		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-
	Uranium (U)	mg/L	-	0.000001		0.000172	0.000191	0.000731	0.00219	0.00428	0.0068	0.00354	0.00231	0.00144	0.0024	0.00302	0.00383	0.00615	<0.000001	-
	Vanadium (V)	mg/L	-	0.00005		0.00114	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00297	0.00519	<0.00005	-
	Zinc (Zn)	mg/L	Variable	0.0001		0.0017	0.0019	<0.0001	<0.0001	<0.0001	0.0065	0.0042	0.002	0.001	<0.0001	<0.0001	0.0029	0.002	<0.0001	-
	Zinc (Zn) - CCME long term guideline based on dissolved hardness, DOC &					*0.0787*	*0.0631*	*0.102*	*0.109*	*0.0853*	*0.119*	*0.123*	*0.154*	*0.146*	*0.0908*	*0.131*	*0.315*	*0.404*	-	-
	Zirconium (Zr)	mg/L	-	0.00002		0.00099	0.00056	0.00071	0.00072	<0.00002	<0.00002	<0.00002	0.00024	0.00024	0.00025	0.0007	0.00212	0.0044	<0.00002	-
Aggregate organics																				
	Biochemical oxygen demand	mg/L	-	0.1		-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	2	-	-

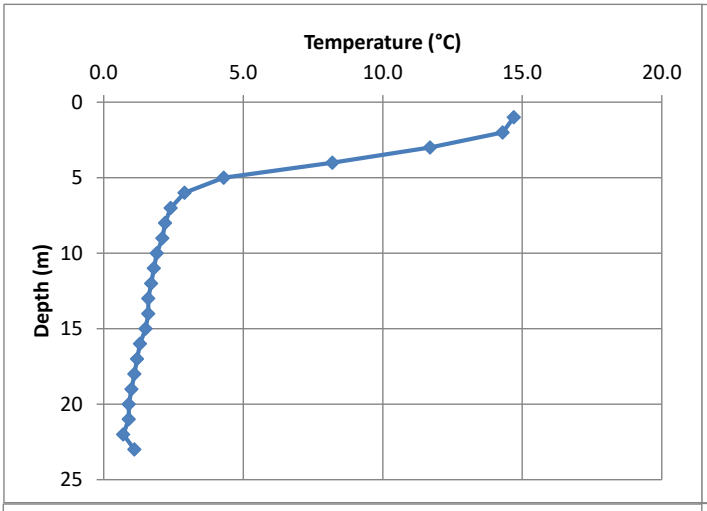
Exceedance colour key:
Exceeds CCME - Long term aquatic life
Replicate exceeded 20% relative percent difference (RPD)
<5DL Less than 5 times detection limit, RPD not calculated

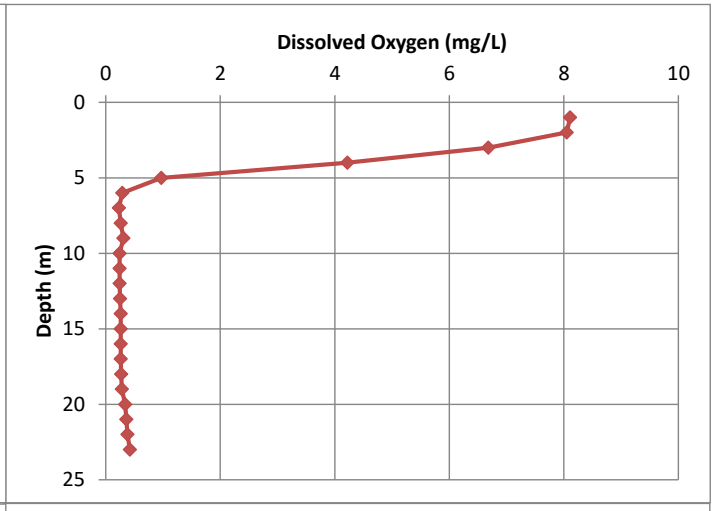
Appendix D: Hudgeon Lake In-situ Water Quality Data Tables
Site HL3

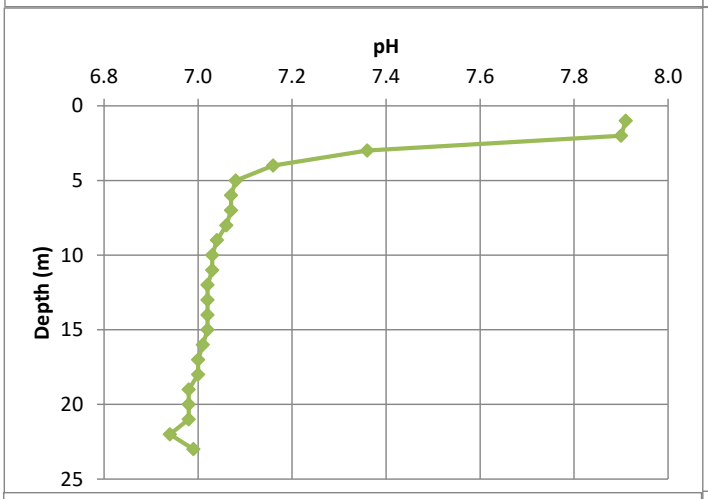
In-situ water quality depth profile at site HL3 - Hudgeon Lake, near the outlet, August 2022

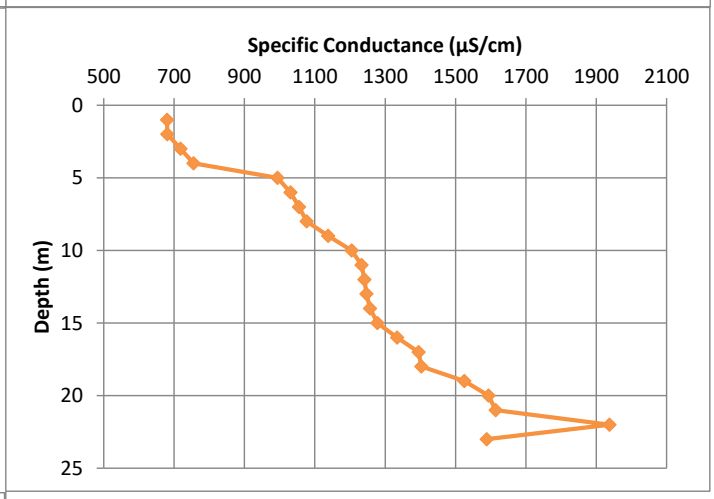
Site	HL3				
Date Time	10-Aug-2022 18:54				
Depth (m)	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm)	pH	ORP (mV)
1	14.7	8.11	680	7.91	44.2
2	14.3	8.05	681	7.90	41.9
3	11.7	6.68	718	7.36	24.7
4	8.2	4.22	755	7.16	6.5
5	4.3	0.97	994	7.08	-28.9
6	2.9	0.29	1031	7.07	-34.6
7	2.4	0.23	1055	7.07	-38.6
8	2.2	0.26	1077	7.06	-40.1
9	2.1	0.31	1138	7.04	-40.4
10	1.9	0.24	1205	7.03	-90.4
11	1.8	0.24	1233	7.03	-82.5
12	1.7	0.24	1241	7.02	-79.3
13	1.6	0.25	1247	7.02	-76.7
14	1.6	0.26	1257	7.02	-77.6
15	1.5	0.26	1278	7.02	-74.9
16	1.3	0.26	1334	7.01	-75.0
17	1.2	0.26	1395	7.00	-73.4
18	1.1	0.27	1403	7.00	-71.3
19	1.0	0.28	1525	6.98	-64.6
20	0.9	0.34	1594	6.98	-46.2
21	0.9	0.36	1614	6.98	-45.9
22	0.7	0.38	1938	6.94	-34.5
23	1.1	0.42	1589	6.99	-29.3

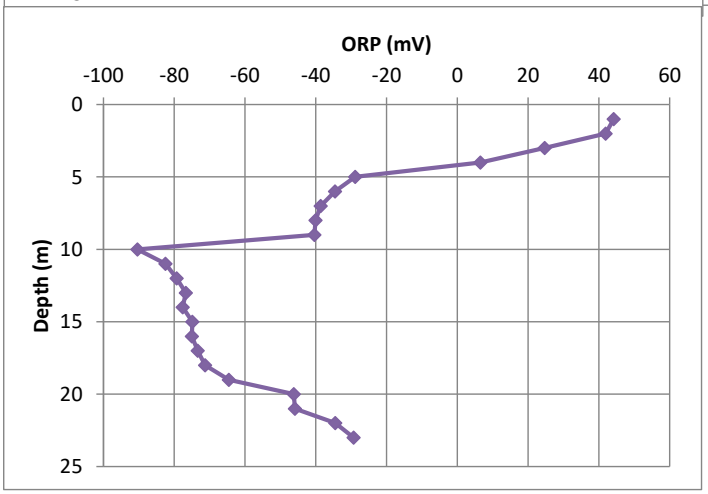
Appendix D: Hudgeon Lake In-situ Water Quality Data Tables
Site HL3











APPENDIX E LABORATORY CERTIFICATES OF ANALYSIS AND RESULTS

CERTIFICATE OF ANALYSIS

Work Order	: **WR2200854**	Page	: 1 of 27
Amendment	: **1**		
Client	: **EDI Environmental Dynamics Inc.**	Laboratory	: Whitehorse - Environmental
Contact	: Lyndsay Doetzel	Account Manager	: Heather McKenzie
Address	: 2195 2nd Avenue Whitehorse YT Canada Y1A 3T8	Address	: #12 151 Industrial Road Whitehorse YT Canada Y1A 2V3
Telephone	: 867 393 4882	Telephone	: +1 867 668 6689
Project	: 20Y0150 Clinton Creek	Date Samples Received	: 12-Aug-2022 11:50
PO	: ----	Date Analysis Commenced	: 15-Aug-2022
C-O-C number	: ----	Issue Date	: 16-Sep-2022 15:41
Sampler	: ----		
Site	: ----		
Quote number	: Q77741		
No. of samples received	: 29		
No. of samples analysed	: 29		

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Angela Ren	Team Leader - Metals	Metals, Burnaby, British Columbia
Angelo Salandanan	Lab Assistant	Metals, Burnaby, British Columbia
Cindy Tang	Team Leader - Inorganics	Inorganics, Burnaby, British Columbia
Erin Sanchez		Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Inorganics, Burnaby, British Columbia
Paolo Obillo	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio
Qammar Almas	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia

General Comments

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

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

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

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

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	No Unit
µS/cm	Microsiemens per centimetre
L	litres
mf/L	million fibres per litre
mg/L	milligrams per litre
mm²	square millimetres
pH units	pH units

<: less than.

>: greater than.

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

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

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

Workorder Comments

Amendment (16/09/2022): This report has been amended and re-released to allow the reporting of additional analytical data (TSS for the Travel Blank).

TSS analysis performed by the ALS Cincinnati OH laboratory for Health & Safety reasons due to possibility of Asbestos content present during the filter drying process. Note: The required Asbestos analysis (TEM) for selected samples will also be sent to ALS Cincinnati.

Qualifiers

Qualifier	*Description*
DLA	*Detection Limit adjusted for required dilution.*
DLDS	*Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	CC-201	E1	R7	SL	GWCC-5
					Client sampling date / time	11-Aug-2022 13:40	11-Aug-2022 13:30	11-Aug-2022 11:25	11-Aug-2022 12:30	11-Aug-2022 15:20
						WR2200854-001	WR2200854-002	WR2200854-003	WR2200854-004	WR2200854-005
						Result	Result	Result	Result	Result
Physical Tests										
conductivity	----	E100	2.0	µS/cm		641	644	243	1690	899
hardness (as CaCO3), dissolved	----	EC100	0.60	mg/L		357	363	133	1110	532
hardness (as CaCO3), from total Ca/Mg	----	EC100A	0.60	mg/L		364	361	136	1150	517
pH	----	E108	0.10	pH units		8.15	8.16	8.05	8.27	7.68
solids, total suspended [TSS]	----	EPA 160.2	2	mg/L		see attached	see attached	see attached	see attached	see attached
Anions and Nutrients										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L		0.0136	0.0100	0.0681	0.0077	0.0160
bromide	24959-67-9	E235.Br-L	0.050	mg/L		<0.250 DLDS	<0.250 DLDS	<0.050	<0.500 DLDS	<0.250 DLDS
chloride	16887-00-6	E235.Cl	0.50	mg/L		<2.50 DLDS	<2.50 DLDS	<0.50	<5.00 DLDS	<2.50 DLDS
fluoride	16984-48-8	E235.F	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	0.079	<0.200 DLDS	0.134
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L		0.0442	0.0457	0.0560	<0.0500 DLDS	<0.0250 DLDS
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L		<0.0050 DLDS	<0.0050 DLDS	<0.0010	<0.0100 DLDS	<0.0050 DLDS
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L		0.0058	0.0059	0.0386	0.0059	0.0046
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L		231	228	50.3	886	300
Organic / Inorganic Carbon										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L		15.1	16.0	30.5	7.02	8.22
Total Metals										
aluminum, total	7429-90-5	E420	0.0030	mg/L		0.0206	0.0211	0.803	0.0101	0.0054
antimony, total	7440-36-0	E420	0.00010	mg/L		0.00034	0.00034	0.00026	0.00292	0.00020
arsenic, total	7440-38-2	E420	0.00010	mg/L		0.00088	0.00088	0.00179	0.0177	0.00172
barium, total	7440-39-3	E420	0.00010	mg/L		0.0497	0.0488	0.0876	0.0274	0.0562
beryllium, total	7440-41-7	E420	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, total	7440-69-9	E420	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
boron, total	7440-42-8	E420	0.010	mg/L		0.013	0.012	<0.010	0.056	0.030
cadmium, total	7440-43-9	E420	0.0000050	mg/L		0.0000348	0.0000400	0.0000465	0.0000275	0.0000708
calcium, total	7440-70-2	E420	0.050	mg/L		71.3	69.9	30.4	239	115
cesium, total	7440-46-2	E420	0.000010	mg/L		0.000105	0.000099	0.000061	0.00612	0.000180
chromium, total	7440-47-3	E420	0.00050	mg/L		<0.00050	<0.00050	0.00249	0.00146	<0.00050
cobalt, total	7440-48-4	E420	0.00010	mg/L		0.00022	0.00018	0.00105	0.00023	0.00133
copper, total	7440-50-8	E420	0.00050	mg/L		0.00221	0.00222	0.00475	0.00082	<0.00050

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	CC-201	E1	R7	SL	GWCC-5
					Client sampling date / time	11-Aug-2022 13:40	11-Aug-2022 13:30	11-Aug-2022 11:25	11-Aug-2022 12:30	11-Aug-2022 15:20
						WR2200854-001	WR2200854-002	WR2200854-003	WR2200854-004	WR2200854-005
						Result	Result	Result	Result	Result
Total Metals										
iron, total	7439-89-6	E420	0.010	mg/L		0.078	0.076	2.08	0.042	0.745
lead, total	7439-92-1	E420	0.000050	mg/L		<0.000050	<0.000050	0.000390	<0.000050	<0.000050
lithium, total	7439-93-2	E420	0.0010	mg/L		0.0045	0.0044	<0.0010	0.0112	0.0080
magnesium, total	7439-95-4	E420	0.0050	mg/L		45.3	45.4	14.5	135	55.8
manganese, total	7439-96-5	E420	0.00010	mg/L		0.0384	0.0318	0.288	0.0436	0.257
mercury, total	7439-97-6	E508	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
molybdenum, total	7439-98-7	E420	0.000050	mg/L		0.00135	0.00134	0.00116	0.00231	0.00230
nickel, total	7440-02-0	E420	0.00050	mg/L		0.00731	0.00671	0.00473	0.0184	0.0330
phosphorus, total	7723-14-0	E420	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
potassium, total	7440-09-7	E420	0.050	mg/L		0.734	0.732	0.256	1.62	0.873
rubidium, total	7440-17-7	E420	0.00020	mg/L		0.00042	0.00032	0.00075	0.00481	0.00206
selenium, total	7782-49-2	E420	0.000050	mg/L		0.00100	0.000974	0.000323	0.0104	0.000253
silicon, total	7440-21-3	E420	0.10	mg/L		4.01	3.93	6.92	5.83	5.80
silver, total	7440-22-4	E420	0.000010	mg/L		<0.000010	<0.000010	0.000014	<0.000010	<0.000010
sodium, total	7440-23-5	E420	0.050	mg/L		3.53	3.46	2.04	3.73	3.86
strontium, total	7440-24-6	E420	0.00020	mg/L		0.385	0.372	0.0940	1.18	0.652
sulfur, total	7704-34-9	E420	0.50	mg/L		84.9	85.8	17.7	325	108
tellurium, total	13494-80-9	E420	0.00020	mg/L		<0.00020	<0.00020	<0.00020	0.00026	<0.00020
thallium, total	7440-28-0	E420	0.000010	mg/L		0.000017	0.000017	<0.000010	0.000010	0.000025
thorium, total	7440-29-1	E420	0.00010	mg/L		<0.00010	<0.00010	0.00014	<0.00010	<0.00010
tin, total	7440-31-5	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
titanium, total	7440-32-6	E420	0.00030	mg/L		<0.00030	0.00040	<0.0222 DLM	<0.00030	<0.00030
tungsten, total	7440-33-7	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00011	<0.00010
uranium, total	7440-61-1	E420	0.000010	mg/L		0.00283	0.00288	0.000224	0.00452	0.00227
vanadium, total	7440-62-2	E420	0.00050	mg/L		<0.00050	<0.00050	0.00358	<0.00050	<0.00050
zinc, total	7440-66-6	E420	0.0030	mg/L		<0.0030	<0.0030	0.0032	<0.0030	<0.0030
zirconium, total	7440-67-7	E420	0.00020	mg/L		0.00062	0.00063	0.00088	<0.00020	0.00026
Dissolved Metals										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L		0.0166	0.0173	0.0712	0.0015	0.0017
antimony, dissolved	7440-36-0	E421	0.00010	mg/L		0.00031	0.00031	0.00023	0.00265	0.00021
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L		0.00080	0.00075	0.00132	0.0169	0.00125

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	CC-201	E1	R7	SL	GWCC-5
					Client sampling date / time	11-Aug-2022 13:40	11-Aug-2022 13:30	11-Aug-2022 11:25	11-Aug-2022 12:30	11-Aug-2022 15:20
						WR2200854-001	WR2200854-002	WR2200854-003	WR2200854-004	WR2200854-005
						Result	Result	Result	Result	Result
Dissolved Metals										
barium, dissolved	7440-39-3	E421	0.00010	mg/L		0.0473	0.0484	0.0623	0.0267	0.0539
beryllium, dissolved	7440-41-7	E421	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
boron, dissolved	7440-42-8	E421	0.010	mg/L		0.012	0.012	<0.010	0.051	0.028
cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L		0.0000365	0.0000337	0.0000163	0.0000219	0.0000734
calcium, dissolved	7440-70-2	E421	0.050	mg/L		69.2	71.3	29.5	235	121
cesium, dissolved	7440-46-2	E421	0.000010	mg/L		0.000096	0.000096	<0.000010	0.00545	0.000208
chromium, dissolved	7440-47-3	E421	0.00050	mg/L		<0.00050	<0.00050	0.00113	0.00127	<0.00050
cobalt, dissolved	7440-48-4	E421	0.00010	mg/L		0.00019	0.00016	0.00056	0.00019	0.00138
copper, dissolved	7440-50-8	E421	0.00020	mg/L		0.00204	0.00213	0.00323	0.00078	0.00021
iron, dissolved	7439-89-6	E421	0.010	mg/L		0.057	0.057	0.934	0.015	0.408
lead, dissolved	7439-92-1	E421	0.000050	mg/L		<0.000050	<0.000050	0.000066	<0.000050	<0.000050
lithium, dissolved	7439-93-2	E421	0.0010	mg/L		0.0042	0.0041	<0.0010	0.0098	0.0074
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L		44.8	44.9	14.5	128	55.7
manganese, dissolved	7439-96-5	E421	0.00010	mg/L		0.0284	0.0239	0.263	0.0354	0.272
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L		0.00124	0.00126	0.000972	0.00206	0.00230
nickel, dissolved	7440-02-0	E421	0.00050	mg/L		0.00713	0.00658	0.00357	0.0180	0.0376
phosphorus, dissolved	7723-14-0	E421	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
potassium, dissolved	7440-09-7	E421	0.050	mg/L		0.631	0.630	0.161	1.34	0.757
rubidium, dissolved	7440-17-7	E421	0.00020	mg/L		0.00034	0.00034	<0.00020	0.00446	0.00209
selenium, dissolved	7782-49-2	E421	0.000050	mg/L		0.000968	0.00103	0.000290	0.0101	0.000235
silicon, dissolved	7440-21-3	E421	0.050	mg/L		3.71	3.57	5.25	5.31	5.33
silver, dissolved	7440-22-4	E421	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
sodium, dissolved	7440-23-5	E421	0.050	mg/L		3.36	3.39	2.00	3.44	3.80
strontium, dissolved	7440-24-6	E421	0.00020	mg/L		0.338	0.338	0.0861	1.03	0.612
sulfur, dissolved	7704-34-9	E421	0.50	mg/L		78.5	78.8	17.1	303	105
tellurium, dissolved	13494-80-9	E421	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
thallium, dissolved	7440-28-0	E421	0.000010	mg/L		0.000018	0.000016	<0.000010	0.000010	0.000032
thorium, dissolved	7440-29-1	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
tin, dissolved	7440-31-5	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	CC-201	E1	R7	SL	GWCC-5
					Client sampling date / time	11-Aug-2022 13:40	11-Aug-2022 13:30	11-Aug-2022 11:25	11-Aug-2022 12:30	11-Aug-2022 15:20
						WR2200854-001	WR2200854-002	WR2200854-003	WR2200854-004	WR2200854-005
						Result	Result	Result	Result	Result
Dissolved Metals										
titanium, dissolved	7440-32-6	E421	0.00030	mg/L		<0.00030	<0.00030	0.00230	<0.00030	<0.00030
tungsten, dissolved	7440-33-7	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
uranium, dissolved	7440-61-1	E421	0.000010	mg/L		0.00270	0.00277	0.000172	0.00428	0.00240
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L		<0.00050	<0.00050	0.00114	<0.00050	<0.00050
zinc, dissolved	7440-66-6	E421	0.0010	mg/L		<0.0010	<0.0010	0.0017	<0.0010	<0.0010
zirconium, dissolved	7440-67-7	E421	0.00020	mg/L		0.00056	0.00054	0.00099	<0.00020	0.00025
dissolved mercury filtration location	----	EP509	-	-		Field	Field	Field	Field	Field
dissolved metals filtration location	----	EP421	-	-		Field	Field	Field	Field	Field
Speciated Metals										
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.00050	mg/L		----	----	<0.00050	0.00100	----
chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L		----	----	<0.00050	0.00100	----
chromium, trivalent [Cr III], dissolved	16065-83-1	EC535A	0.00050	mg/L		----	----	0.00113	<0.00050	----
chromium, trivalent [Cr III], total	16065-83-1	EC535	0.00050	mg/L		----	----	0.00249	<0.00050	----

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

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	GWCC-2	GWCC-3	GWCC-1	GWCC-4	E3
					Client sampling date / time	11-Aug-2022 14:30	11-Aug-2022 14:10	11-Aug-2022 14:35	11-Aug-2022 14:05	09-Aug-2022 13:45
						WR2200854-006	WR2200854-007	WR2200854-008	WR2200854-009	WR2200854-010
						Result	Result	Result	Result	Result
Sample Preparation										
average opening area	----	EPA 100.2mf	-	mm²		----	----	----	----	see attached
date of analysis	----	EPA 100.2mf	-	-		----	----	----	----	see attached
date of filtration	----	EPA 100.2mf	-	-		----	----	----	----	see attached
openings analyzed	----	EPA 100.2mf	-	-		----	----	----	----	see attached
time of analysis	----	EPA 100.2mf	-	-		----	----	----	----	see attached
time of filtration	----	EPA 100.2mf	-	-		----	----	----	----	see attached
volume filtered	----	EPA 100.2mf	-	L		----	----	----	----	see attached
Physical Tests										
conductivity	----	E100	2.0	µS/cm		1890	1270	2550	901	980
hardness (as CaCO3), dissolved	----	EC100	0.60	mg/L		1290	811	1840	546	605
hardness (as CaCO3), from total Ca/Mg	----	EC100A	0.60	mg/L		1330	809	1820	546	609
pH	----	E108	0.10	pH units		7.88	7.82	7.73	7.78	8.32
solids, total suspended [TSS]	----	EPA 160.2	2	mg/L		see attached	see attached	see attached	see attached	see attached
Asbestos/Other Fibres										
asbestos, actinolite	13768-00-8	EPA 100.2mf	-	mf/L		----	----	----	----	see attached
asbestos, amosite	12172-73-5	EPA 100.2mf	-	mf/L		----	----	----	----	see attached
asbestos, anthophyllite	17068-78-9	EPA 100.2mf	-	mf/L		----	----	----	----	see attached
asbestos, total (by TEM)	1332-21-4	EPA 100.2mf	-	mf/L		----	----	----	----	see attached
asbestos, chrysotile	12001-29-5	EPA 100.2mf	-	mf/L		----	----	----	----	see attached
asbestos, crocidolite	12001-28-4	EPA 100.2mf	-	mf/L		----	----	----	----	see attached
asbestos, tremolite	14567-73-8	EPA 100.2mf	-	mf/L		----	----	----	----	see attached
Anions and Nutrients										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L		<0.0050	0.0075	0.0164	0.0064	0.0124
bromide	24959-67-9	E235.Br-L	0.050	mg/L		<1.00 DLDS	<0.250 DLDS	<1.00 DLDS	<0.250 DLDS	<0.250 DLDS
chloride	16887-00-6	E235.Cl	0.50	mg/L		<10.0 DLDS	<2.50 DLDS	<10.0 DLDS	<2.50 DLDS	<2.50 DLDS
fluoride	16984-48-8	E235.F	0.020	mg/L		<0.400 DLDS	0.126	<0.400 DLDS	0.121	0.128
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L		0.422	0.206	0.651	0.0867	0.102
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L		<0.0200 DLDS	<0.0050 DLDS	<0.0200 DLDS	<0.0050 DLDS	<0.0050 DLDS
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L		0.0027	0.0034	0.0050	0.0023	0.0077
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L		1020	587	1520	356	395
Organic / Inorganic Carbon										

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	GWCC-2	GWCC-3	GWCC-1	GWCC-4	E3
					Client sampling date / time	11-Aug-2022 14:30	11-Aug-2022 14:10	11-Aug-2022 14:35	11-Aug-2022 14:05	09-Aug-2022 13:45
						WR2200854-006	WR2200854-007	WR2200854-008	WR2200854-009	WR2200854-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L		7.40	9.40	5.88	10.1	11.9
Total Metals										
aluminum, total	7429-90-5	E420	0.0030	mg/L		<0.0060 DLA	<0.0030	0.0165	0.0048	0.0230
antimony, total	7440-36-0	E420	0.00010	mg/L		0.00108	0.00085	0.00134	0.00096	0.00113
arsenic, total	7440-38-2	E420	0.00010	mg/L		0.00161	0.00095	0.00237	0.00126	0.00148
barium, total	7440-39-3	E420	0.00010	mg/L		0.0225	0.0341	0.0210	0.0375	0.0633
beryllium, total	7440-41-7	E420	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, total	7440-69-9	E420	0.000050	mg/L		<0.000100 DLA	<0.000050	<0.000100 DLA	<0.000050	<0.000050
boron, total	7440-42-8	E420	0.010	mg/L		0.149	0.087	0.256	0.060	0.110
cadmium, total	7440-43-9	E420	0.0000050	mg/L		0.000142	0.0000828	0.000214	0.0000553	0.0000188
calcium, total	7440-70-2	E420	0.050	mg/L		172	126	206	94.4	94.0
cesium, total	7440-46-2	E420	0.000010	mg/L		0.00756	0.00412	0.0144	0.00610	0.000204
chromium, total	7440-47-3	E420	0.00050	mg/L		0.00146	0.00059	0.00317	<0.00050	0.00102
cobalt, total	7440-48-4	E420	0.00010	mg/L		<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	0.00019
copper, total	7440-50-8	E420	0.00050	mg/L		<0.00100 DLA	0.00109	0.00161	0.00124	0.00147
iron, total	7439-89-6	E420	0.010	mg/L		<0.020 DLA	<0.010	0.032	<0.010	0.078
lead, total	7439-92-1	E420	0.000050	mg/L		<0.000100 DLA	<0.000050	0.000101	<0.000050	<0.000050
lithium, total	7439-93-2	E420	0.0010	mg/L		0.0215	0.0102	0.0681	0.0082	0.0076
magnesium, total	7439-95-4	E420	0.0050	mg/L		219	120	318	75.4	91.0
manganese, total	7439-96-5	E420	0.00010	mg/L		<0.00020 DLA	0.00020	0.00283	0.00023	0.0527
mercury, total	7439-97-6	E508	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
molybdenum, total	7439-98-7	E420	0.000050	mg/L		0.00280	0.00268	0.00270	0.00251	0.00188
nickel, total	7440-02-0	E420	0.00050	mg/L		0.0458	0.0336	0.0708	0.0362	0.0107
phosphorus, total	7723-14-0	E420	0.050	mg/L		<0.100 DLA	<0.050	<0.100 DLA	<0.050	<0.050
potassium, total	7440-09-7	E420	0.050	mg/L		2.35	1.64	3.85	1.33	1.15
rubidium, total	7440-17-7	E420	0.00020	mg/L		0.00749	0.00350	0.0162	0.00351	0.00084
selenium, total	7782-49-2	E420	0.000050	mg/L		0.00355	0.00189	0.00529	0.000962	0.000974
silicon, total	7440-21-3	E420	0.10	mg/L		5.98	5.66	6.69	6.42	5.55
silver, total	7440-22-4	E420	0.000010	mg/L		<0.000020 DLA	<0.000010	<0.000020 DLA	<0.000010	<0.000010
sodium, total	7440-23-5	E420	0.050	mg/L		8.68	5.17	17.5	4.02	6.29
strontium, total	7440-24-6	E420	0.00020	mg/L		1.05	0.659	1.89	0.502	0.545

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	GWCC-2	GWCC-3	GWCC-1	GWCC-4	E3
					Client sampling date / time	11-Aug-2022 14:30	11-Aug-2022 14:10	11-Aug-2022 14:35	11-Aug-2022 14:05	09-Aug-2022 13:45
						WR2200854-006	WR2200854-007	WR2200854-008	WR2200854-009	WR2200854-010
						Result	Result	Result	Result	Result
Total Metals										
sulfur, total	7704-34-9	E420	0.50	mg/L		382	216	547	131	147
tellurium, total	13494-80-9	E420	0.00020	mg/L		<0.00040 DLA	<0.00020	<0.00040 DLA	<0.00020	<0.00020
thallium, total	7440-28-0	E420	0.000010	mg/L		0.000056	0.000064	0.000074	0.000069	<0.000010
thorium, total	7440-29-1	E420	0.00010	mg/L		<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	<0.00010
tin, total	7440-31-5	E420	0.00010	mg/L		<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	<0.00010
titanium, total	7440-32-6	E420	0.00030	mg/L		<0.00060 DLA	<0.00030	<0.00060 DLA	<0.00030	0.00062
tungsten, total	7440-33-7	E420	0.00010	mg/L		<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	0.00042
uranium, total	7440-61-1	E420	0.000010	mg/L		0.00384	0.00234	0.00699	0.00153	0.00658
vanadium, total	7440-62-2	E420	0.00050	mg/L		<0.00100 DLA	<0.00050	<0.00100 DLA	<0.00050	0.00061
zinc, total	7440-66-6	E420	0.0030	mg/L		<0.0060 DLA	<0.0030	0.0122	<0.0030	<0.0030
zirconium, total	7440-67-7	E420	0.00020	mg/L		<0.00040 DLA	0.00025	<0.00040 DLA	0.00025	0.00042
Dissolved Metals										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L		<0.0020 DLA	<0.0010	<0.0020 DLA	0.0014	0.0088
antimony, dissolved	7440-36-0	E421	0.00010	mg/L		0.00101	0.00084	0.00123	0.00089	0.00102
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L		0.00142	0.00090	0.00223	0.00120	0.00131
barium, dissolved	7440-39-3	E421	0.00010	mg/L		0.0227	0.0343	0.0207	0.0361	0.0602
beryllium, dissolved	7440-41-7	E421	0.000100	mg/L		<0.000100 DLA	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L		<0.000100 DLA	<0.000050	<0.000100 DLA	<0.000050	<0.000050
boron, dissolved	7440-42-8	E421	0.010	mg/L		0.136	0.084	0.256	0.057	0.107
cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L		0.000135	0.0000933	0.000214	0.0000531	0.0000198
calcium, dissolved	7440-70-2	E421	0.050	mg/L		176	127	214	91.2	96.5
cesium, dissolved	7440-46-2	E421	0.000010	mg/L		0.00664	0.00403	0.0138	0.00569	0.000181
chromium, dissolved	7440-47-3	E421	0.00050	mg/L		0.00119	0.00054	0.00283	<0.00050	0.00082
cobalt, dissolved	7440-48-4	E421	0.00010	mg/L		<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	0.00016
copper, dissolved	7440-50-8	E421	0.00020	mg/L		0.00098	0.00105	0.00084	0.00118	0.00136
iron, dissolved	7439-89-6	E421	0.010	mg/L		<0.020 DLA	<0.010	<0.020 DLA	<0.010	0.024
lead, dissolved	7439-92-1	E421	0.000050	mg/L		<0.000100 DLA	<0.000050	<0.000100 DLA	<0.000050	<0.000050
lithium, dissolved	7439-93-2	E421	0.0010	mg/L		0.0165	0.0094	0.0636	0.0075	0.0070
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L		206	120	316	77.4	88.5
manganese, dissolved	7439-96-5	E421	0.00010	mg/L		<0.00020 DLA	0.00010	<0.00020 DLA	0.00022	0.0419
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	GWCC-2	GWCC-3	GWCC-1	GWCC-4	E3
					Client sampling date / time	11-Aug-2022 14:30	11-Aug-2022 14:10	11-Aug-2022 14:35	11-Aug-2022 14:05	09-Aug-2022 13:45
						WR2200854-006	WR2200854-007	WR2200854-008	WR2200854-009	WR2200854-010
						Result	Result	Result	Result	Result
Dissolved Metals										
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L		0.00274	0.00255	0.00269	0.00233	0.00166
nickel, dissolved	7440-02-0	E421	0.00050	mg/L		0.0427	0.0336	0.0713	0.0361	0.0102
phosphorus, dissolved	7723-14-0	E421	0.050	mg/L		<0.100 DLA	<0.050	<0.100 DLA	<0.050	<0.050
potassium, dissolved	7440-09-7	E421	0.050	mg/L		1.91	1.38	2.99	1.18	0.948
rubidium, dissolved	7440-17-7	E421	0.00020	mg/L		0.00633	0.00340	0.0157	0.00334	0.00077
selenium, dissolved	7782-49-2	E421	0.000050	mg/L		0.00337	0.00174	0.00488	0.000880	0.00101
silicon, dissolved	7440-21-3	E421	0.050	mg/L		5.36	5.27	6.07	5.85	5.04
silver, dissolved	7440-22-4	E421	0.000010	mg/L		<0.000020 DLA	<0.000010	<0.000020 DLA	<0.000010	<0.000010
sodium, dissolved	7440-23-5	E421	0.050	mg/L		7.38	4.86	16.1	3.88	5.86
strontium, dissolved	7440-24-6	E421	0.00020	mg/L		0.939	0.646	1.84	0.485	0.493
sulfur, dissolved	7704-34-9	E421	0.50	mg/L		342	206	519	123	136
tellurium, dissolved	13494-80-9	E421	0.00020	mg/L		<0.00040 DLA	<0.00020	<0.00040 DLA	<0.00020	<0.00020
thallium, dissolved	7440-28-0	E421	0.000010	mg/L		0.000059	0.000070	0.000068	0.000068	<0.000010
thorium, dissolved	7440-29-1	E421	0.00010	mg/L		<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	<0.00010
tin, dissolved	7440-31-5	E421	0.00010	mg/L		<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	<0.00010
titanium, dissolved	7440-32-6	E421	0.00030	mg/L		<0.00060 DLA	<0.00030	<0.00060 DLA	<0.00030	<0.00030
tungsten, dissolved	7440-33-7	E421	0.00010	mg/L		<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	0.00042
uranium, dissolved	7440-61-1	E421	0.000010	mg/L		0.00354	0.00231	0.00680	0.00144	0.00591
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L		<0.00100 DLA	<0.00050	<0.00100 DLA	<0.00050	<0.00050
zinc, dissolved	7440-66-6	E421	0.0010	mg/L		0.0042	0.0020	0.0065	0.0010	<0.0010
zirconium, dissolved	7440-67-7	E421	0.00020	mg/L		<0.00040 DLA	0.00024	<0.00040 DLA	0.00024	0.00036
dissolved mercury filtration location	----	EP509	-	-		Field	Field	Field	Field	Field
dissolved metals filtration location	----	EP421	-	-		Field	Field	Field	Field	Field
Speciated Metals										
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.00050	mg/L		0.00130	----	0.00280	----	----
chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L		0.00130	----	0.00280	----	0.00050
chromium, trivalent [Cr III], dissolved	16065-83-1	EC535A	0.00050	mg/L		<0.00050	----	<0.00056	----	----
chromium, trivalent [Cr III], total	16065-83-1	EC535	0.00050	mg/L		<0.00050	----	<0.00061	----	0.00052

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

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	E2	R4	E4	R1	E1(H)
					Client sampling date / time	09-Aug-2022 13:30	09-Aug-2022 12:00	09-Aug-2022 11:30	10-Aug-2022 15:55	11-Aug-2022 09:00
						WR2200854-011	WR2200854-012	WR2200854-013	WR2200854-014	WR2200854-015
						Result	Result	Result	Result	Result
Sample Preparation										
average opening area	----	EPA 100.2mf	-	mm²		see attached	----	----	see attached	----
date of analysis	----	EPA 100.2mf	-	-		see attached	----	----	see attached	----
date of filtration	----	EPA 100.2mf	-	-		see attached	----	----	see attached	----
openings analyzed	----	EPA 100.2mf	-	-		see attached	----	----	see attached	----
time of analysis	----	EPA 100.2mf	-	-		see attached	----	----	see attached	----
time of filtration	----	EPA 100.2mf	-	-		see attached	----	----	see attached	----
volume filtered	----	EPA 100.2mf	-	L		see attached	----	----	see attached	----
Physical Tests										
conductivity	----	E100	2.0	µS/cm		896	810	1030	1040	633
hardness (as CaCO3), dissolved	----	EC100	0.60	mg/L		538	468	625	621	357
hardness (as CaCO3), from total Ca/Mg	----	EC100A	0.60	mg/L		540	463	610	618	356
pH	----	E108	0.10	pH units		8.05	8.25	8.10	8.17	8.13
solids, total suspended [TSS]	----	EPA 160.2	2	mg/L		see attached	see attached	see attached	see attached	see attached
Asbestos/Other Fibres										
asbestos, actinolite	13768-00-8	EPA 100.2mf	-	mf/L		see attached	----	----	see attached	----
asbestos, amosite	12172-73-5	EPA 100.2mf	-	mf/L		see attached	----	----	see attached	----
asbestos, anthophyllite	17068-78-9	EPA 100.2mf	-	mf/L		see attached	----	----	see attached	----
asbestos, total (by TEM)	1332-21-4	EPA 100.2mf	-	mf/L		see attached	----	----	see attached	----
asbestos, chrysotile	12001-29-5	EPA 100.2mf	-	mf/L		see attached	----	----	see attached	----
asbestos, crocidolite	12001-28-4	EPA 100.2mf	-	mf/L		see attached	----	----	see attached	----
asbestos, tremolite	14567-73-8	EPA 100.2mf	-	mf/L		see attached	----	----	see attached	----
Anions and Nutrients										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L		0.0178	0.0116	0.0078	0.0224	0.0231
bromide	24959-67-9	E235.Br-L	0.050	mg/L		<0.250 DLDS	<0.250 DLDS	<0.250 DLDS	<0.250 DLDS	<0.250 DLDS
chloride	16887-00-6	E235.Cl	0.50	mg/L		<2.50 DLDS	<2.50 DLDS	<2.50 DLDS	<2.50 DLDS	<2.50 DLDS
fluoride	16984-48-8	E235.F	0.020	mg/L		0.116	0.111	0.120	<0.100 DLDS	<0.100 DLDS
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L		0.0733	0.0760	0.0542	0.0771	0.0496
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L		<0.0050 DLDS	<0.0050 DLDS	<0.0050 DLDS	<0.0050 DLDS	<0.0050 DLDS
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L		0.0045	0.0059	0.0043	0.0036	0.0130
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L		369	270	413	430	229
Organic / Inorganic Carbon										

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	E2	R4	E4	R1	E1(H)
					Client sampling date / time	09-Aug-2022 13:30	09-Aug-2022 12:00	09-Aug-2022 11:30	10-Aug-2022 15:55	11-Aug-2022 09:00
						WR2200854-011	WR2200854-012	WR2200854-013	WR2200854-014	WR2200854-015
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L		13.2	13.1	11.7	11.1	17.3
Total Metals										
aluminum, total	7429-90-5	E420	0.0030	mg/L		0.0128	0.0246	0.0126	0.0192	0.0454
antimony, total	7440-36-0	E420	0.00010	mg/L		0.00043	0.00036	0.00050	0.00019	0.00032
arsenic, total	7440-38-2	E420	0.00010	mg/L		0.00126	0.00208	0.00110	0.00061	0.00078
barium, total	7440-39-3	E420	0.00010	mg/L		0.0526	0.0588	0.0546	0.0573	0.0507
beryllium, total	7440-41-7	E420	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, total	7440-69-9	E420	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
boron, total	7440-42-8	E420	0.010	mg/L		0.046	<0.010	0.080	0.013	0.010
cadmium, total	7440-43-9	E420	0.0000050	mg/L		0.0000647	0.000102	0.0000526	0.0000628	0.0000465
calcium, total	7440-70-2	E420	0.050	mg/L		92.8	97.7	99.4	124	69.5
cesium, total	7440-46-2	E420	0.000010	mg/L		0.00123	0.000073	0.00125	0.000012	0.000012
chromium, total	7440-47-3	E420	0.00050	mg/L		0.00054	<0.00050	0.00060	<0.00050	0.00063
cobalt, total	7440-48-4	E420	0.00010	mg/L		0.00066	0.00036	0.00063	0.00045	0.00037
copper, total	7440-50-8	E420	0.00050	mg/L		0.00157	0.00175	0.00127	0.00136	0.00267
iron, total	7439-89-6	E420	0.010	mg/L		0.387	0.184	0.254	0.340	0.200
lead, total	7439-92-1	E420	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
lithium, total	7439-93-2	E420	0.0010	mg/L		0.0105	0.0052	0.0174	0.0054	0.0043
magnesium, total	7439-95-4	E420	0.0050	mg/L		75.0	53.1	88.0	75.0	44.2
manganese, total	7439-96-5	E420	0.00010	mg/L		0.108	0.0925	0.155	0.330	0.148
mercury, total	7439-97-6	E508	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
molybdenum, total	7439-98-7	E420	0.000050	mg/L		0.00184	0.00159	0.00209	0.00179	0.00117
nickel, total	7440-02-0	E420	0.00050	mg/L		0.0179	0.00943	0.0219	0.00362	0.00470
phosphorus, total	7723-14-0	E420	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
potassium, total	7440-09-7	E420	0.050	mg/L		1.06	0.662	1.28	0.891	0.848
rubidium, total	7440-17-7	E420	0.00020	mg/L		0.00184	0.00037	0.00245	0.00032	0.00028
selenium, total	7782-49-2	E420	0.000050	mg/L		0.00116	0.00147	0.000866	0.000922	0.00119
silicon, total	7440-21-3	E420	0.10	mg/L		4.70	5.33	4.84	4.79	4.14
silver, total	7440-22-4	E420	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
sodium, total	7440-23-5	E420	0.050	mg/L		4.84	6.07	6.25	5.92	3.45
strontium, total	7440-24-6	E420	0.00020	mg/L		0.559	0.558	0.670	0.632	0.350

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	E2	R4	E4	R1	E1(H)
					Client sampling date / time	09-Aug-2022 13:30	09-Aug-2022 12:00	09-Aug-2022 11:30	10-Aug-2022 15:55	11-Aug-2022 09:00
						WR2200854-011	WR2200854-012	WR2200854-013	WR2200854-014	WR2200854-015
						Result	Result	Result	Result	Result
Total Metals										
sulfur, total	7704-34-9	E420	0.50	mg/L		135	102	147	156	80.8
tellurium, total	13494-80-9	E420	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
thallium, total	7440-28-0	E420	0.000010	mg/L		0.000027	<0.000010	0.000019	<0.000010	<0.000010
thorium, total	7440-29-1	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
tin, total	7440-31-5	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
titanium, total	7440-32-6	E420	0.00030	mg/L		<0.00030	0.00065	<0.00030	0.00047	0.00057
tungsten, total	7440-33-7	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
uranium, total	7440-61-1	E420	0.000010	mg/L		0.00276	0.00564	0.00352	0.00532	0.00319
vanadium, total	7440-62-2	E420	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
zinc, total	7440-66-6	E420	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
zirconium, total	7440-67-7	E420	0.00020	mg/L		0.00050	0.00072	0.00090	0.00054	0.00073
Dissolved Metals										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L		0.0079	0.0110	0.0044	0.0067	0.0300
antimony, dissolved	7440-36-0	E421	0.00010	mg/L		0.00040	0.00034	0.00046	0.00020	0.00031
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L		0.00113	0.00186	0.00096	0.00046	0.00070
barium, dissolved	7440-39-3	E421	0.00010	mg/L		0.0516	0.0538	0.0537	0.0549	0.0485
beryllium, dissolved	7440-41-7	E421	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
boron, dissolved	7440-42-8	E421	0.010	mg/L		0.045	<0.010	0.079	0.012	0.010
cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L		0.0000625	0.0000946	0.0000533	0.0000548	0.0000383
calcium, dissolved	7440-70-2	E421	0.050	mg/L		91.2	99.3	99.0	125	69.6
cesium, dissolved	7440-46-2	E421	0.000010	mg/L		0.00110	0.000064	0.00118	<0.000010	<0.000010
chromium, dissolved	7440-47-3	E421	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
cobalt, dissolved	7440-48-4	E421	0.00010	mg/L		0.00062	0.00031	0.00062	0.00045	0.00033
copper, dissolved	7440-50-8	E421	0.00020	mg/L		0.00147	0.00167	0.00130	0.00129	0.00245
iron, dissolved	7439-89-6	E421	0.010	mg/L		0.347	0.125	0.168	0.093	0.110
lead, dissolved	7439-92-1	E421	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
lithium, dissolved	7439-93-2	E421	0.0010	mg/L		0.0099	0.0054	0.0168	0.0053	0.0040
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L		75.3	53.4	91.8	75.1	44.6
manganese, dissolved	7439-96-5	E421	0.00010	mg/L		0.103	0.0864	0.146	0.319	0.132
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	E2	R4	E4	R1	E1(H)
					Client sampling date / time	09-Aug-2022 13:30	09-Aug-2022 12:00	09-Aug-2022 11:30	10-Aug-2022 15:55	11-Aug-2022 09:00
						WR2200854-011	WR2200854-012	WR2200854-013	WR2200854-014	WR2200854-015
						Result	Result	Result	Result	Result
Dissolved Metals										
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L		0.00176	0.00148	0.00192	0.00174	0.00123
nickel, dissolved	7440-02-0	E421	0.00050	mg/L		0.0176	0.00874	0.0216	0.00350	0.00432
phosphorus, dissolved	7723-14-0	E421	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
potassium, dissolved	7440-09-7	E421	0.050	mg/L		0.928	0.551	1.13	0.775	0.626
rubidium, dissolved	7440-17-7	E421	0.00020	mg/L		0.00166	0.00036	0.00251	0.00028	0.00026
selenium, dissolved	7782-49-2	E421	0.000050	mg/L		0.00118	0.00139	0.000879	0.000923	0.00110
silicon, dissolved	7440-21-3	E421	0.050	mg/L		4.27	5.06	4.61	4.71	3.90
silver, dissolved	7440-22-4	E421	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
sodium, dissolved	7440-23-5	E421	0.050	mg/L		4.54	5.44	6.08	5.36	3.23
strontium, dissolved	7440-24-6	E421	0.00020	mg/L		0.514	0.535	0.638	0.626	0.350
sulfur, dissolved	7704-34-9	E421	0.50	mg/L		127	94.6	142	153	78.7
tellurium, dissolved	13494-80-9	E421	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
thallium, dissolved	7440-28-0	E421	0.000010	mg/L		0.000031	<0.000010	0.000019	<0.000010	<0.000010
thorium, dissolved	7440-29-1	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
tin, dissolved	7440-31-5	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
titanium, dissolved	7440-32-6	E421	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	0.00035
tungsten, dissolved	7440-33-7	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
uranium, dissolved	7440-61-1	E421	0.000010	mg/L		0.00267	0.00523	0.00327	0.00488	0.00298
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
zinc, dissolved	7440-66-6	E421	0.0010	mg/L		<0.0010	0.0022	<0.0010	<0.0010	<0.0010
zirconium, dissolved	7440-67-7	E421	0.00020	mg/L		0.00047	0.00069	0.00082	0.00051	0.00070
dissolved mercury filtration location	----	EP509	-	-		Field	Field	Field	Field	Field
dissolved metals filtration location	----	EP421	-	-		Field	Field	Field	Field	Field

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

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	CC-202	R3	R8	R2	Fieldblank
					Client sampling date / time	11-Aug-2022 09:10	09-Aug-2022 18:15	10-Aug-2022 10:35	10-Aug-2022 12:00	10-Aug-2022 14:30
						WR2200854-016	WR2200854-017	WR2200854-018	WR2200854-019	WR2200854-020
						Result	Result	Result	Result	Result
Sample Preparation										
average opening area	----	EPA 100.2mf	-	mm²		----	see attached	----	----	----
date of analysis	----	EPA 100.2mf	-	-		----	see attached	----	----	----
date of filtration	----	EPA 100.2mf	-	-		----	see attached	----	----	----
openings analyzed	----	EPA 100.2mf	-	-		----	see attached	----	----	----
time of analysis	----	EPA 100.2mf	-	-		----	see attached	----	----	----
time of filtration	----	EPA 100.2mf	-	-		----	see attached	----	----	----
volume filtered	----	EPA 100.2mf	-	L		----	see attached	----	----	----
Physical Tests										
conductivity	----	E100	2.0	µS/cm		642	846	381	811	<2.0
hardness (as CaCO3), dissolved	----	EC100	0.60	mg/L		359	454	194	474	<0.60
hardness (as CaCO3), from total Ca/Mg	----	EC100A	0.60	mg/L		356	441	194	480	<0.60
pH	----	E108	0.10	pH units		8.15	8.05	7.86	8.23	5.62
solids, total suspended [TSS]	----	EPA 160.2	2	mg/L		see attached	see attached	see attached	see attached	see attached
Asbestos/Other Fibres										
asbestos, actinolite	13768-00-8	EPA 100.2mf	-	mf/L		----	see attached	----	----	----
asbestos, amosite	12172-73-5	EPA 100.2mf	-	mf/L		----	see attached	----	----	----
asbestos, anthophyllite	17068-78-9	EPA 100.2mf	-	mf/L		----	see attached	----	----	----
asbestos, total (by TEM)	1332-21-4	EPA 100.2mf	-	mf/L		----	see attached	----	----	----
asbestos, chrysotile	12001-29-5	EPA 100.2mf	-	mf/L		----	see attached	----	----	----
asbestos, crocidolite	12001-28-4	EPA 100.2mf	-	mf/L		----	see attached	----	----	----
asbestos, tremolite	14567-73-8	EPA 100.2mf	-	mf/L		----	see attached	----	----	----
Anions and Nutrients										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L		0.0270	0.0122	0.0296	0.0074	<0.0050
bromide	24959-67-9	E235.Br-L	0.050	mg/L		<0.250 DLDS	<0.250 DLDS	<0.050	<0.250 DLDS	<0.050
chloride	16887-00-6	E235.Cl	0.50	mg/L		<2.50 DLDS	<2.50 DLDS	0.56	<2.50 DLDS	<0.50
fluoride	16984-48-8	E235.F	0.020	mg/L		<0.100 DLDS	0.140	0.087	0.176	<0.020
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L		0.0375	<0.0250 DLDS	0.0179	<0.0250 DLDS	<0.0050
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L		<0.0050 DLDS	<0.0050 DLDS	<0.0010	<0.0050 DLDS	<0.0010
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L		0.0082	0.0126	0.0391	0.0056	<0.0020
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L		228	323	134	305	<0.30
Organic / Inorganic Carbon										

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	CC-202	R3	R8	R2	Fieldblank
					Client sampling date / time	11-Aug-2022 09:10	09-Aug-2022 18:15	10-Aug-2022 10:35	10-Aug-2022 12:00	10-Aug-2022 14:30
						WR2200854-016	WR2200854-017	WR2200854-018	WR2200854-019	WR2200854-020
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L		17.7	13.2	18.3	7.65	<0.50
Total Metals										
aluminum, total	7429-90-5	E420	0.0030	mg/L		0.0455	0.0194	0.978	0.0261	<0.0030
antimony, total	7440-36-0	E420	0.00010	mg/L		0.00034	0.00027	0.00137	0.00051	<0.00010
arsenic, total	7440-38-2	E420	0.00010	mg/L		0.00079	0.00065	0.00119	0.00080	<0.00010
barium, total	7440-39-3	E420	0.00010	mg/L		0.0497	0.0708	0.0869	0.0472	<0.00010
beryllium, total	7440-41-7	E420	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, total	7440-69-9	E420	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
boron, total	7440-42-8	E420	0.010	mg/L		0.010	<0.010	<0.010	0.012	<0.010
cadmium, total	7440-43-9	E420	0.0000050	mg/L		0.0000357	0.0000195	0.000223	0.0000278	<0.0000050
calcium, total	7440-70-2	E420	0.050	mg/L		68.5	85.5	47.2	73.6	<0.050
cesium, total	7440-46-2	E420	0.000010	mg/L		0.000011	<0.000010	0.000406	0.000016	<0.000010
chromium, total	7440-47-3	E420	0.00050	mg/L		0.00054	<0.00050	0.00268	<0.00050	<0.00050
cobalt, total	7440-48-4	E420	0.00010	mg/L		0.00035	0.00026	0.00120	0.00022	<0.00010
copper, total	7440-50-8	E420	0.00050	mg/L		0.00261	0.00125	0.00612	0.00105	<0.00050
iron, total	7439-89-6	E420	0.010	mg/L		0.178	0.139	1.98	0.200	<0.010
lead, total	7439-92-1	E420	0.000050	mg/L		<0.000050	<0.000050	0.000911	<0.000050	<0.000050
lithium, total	7439-93-2	E420	0.0010	mg/L		0.0044	0.0036	0.0014	0.0082	<0.0010
magnesium, total	7439-95-4	E420	0.0050	mg/L		44.8	55.2	18.5	72.0	<0.0050
manganese, total	7439-96-5	E420	0.00010	mg/L		0.143	0.0924	0.160	0.0829	<0.00010
mercury, total	7439-97-6	E508	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000134	<0.0000050	<0.0000050
molybdenum, total	7439-98-7	E420	0.000050	mg/L		0.00126	0.00130	0.00157	0.000617	<0.000050
nickel, total	7440-02-0	E420	0.00050	mg/L		0.00452	0.00261	0.00698	0.00351	<0.00050
phosphorus, total	7723-14-0	E420	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
potassium, total	7440-09-7	E420	0.050	mg/L		0.984	0.956	0.329	0.997	<0.050
rubidium, total	7440-17-7	E420	0.00020	mg/L		0.00027	0.00022	0.00178	0.00042	<0.00020
selenium, total	7782-49-2	E420	0.000050	mg/L		0.00120	0.00242	0.00105	0.000400	<0.000050
silicon, total	7440-21-3	E420	0.10	mg/L		4.19	5.30	7.44	5.61	<0.10
silver, total	7440-22-4	E420	0.000010	mg/L		<0.000010	<0.000010	0.000059	<0.000010	<0.000010
sodium, total	7440-23-5	E420	0.050	mg/L		3.60	3.91	5.50	3.66	<0.050
strontium, total	7440-24-6	E420	0.00020	mg/L		0.361	0.404	0.189	0.430	<0.00020

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	CC-202	R3	R8	R2	Fieldblank
					Client sampling date / time	11-Aug-2022 09:10	09-Aug-2022 18:15	10-Aug-2022 10:35	10-Aug-2022 12:00	10-Aug-2022 14:30
						WR2200854-016	WR2200854-017	WR2200854-018	WR2200854-019	WR2200854-020
						Result	Result	Result	Result	Result
Total Metals										
sulfur, total	7704-34-9	E420	0.50	mg/L		83.2	97.9	47.2	108	<0.50
tellurium, total	13494-80-9	E420	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
thallium, total	7440-28-0	E420	0.000010	mg/L		<0.000010	<0.000010	0.000037	<0.000010	<0.000010
thorium, total	7440-29-1	E420	0.00010	mg/L		0.00012	<0.00010	0.00024	<0.00010	<0.00010
tin, total	7440-31-5	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
titanium, total	7440-32-6	E420	0.00030	mg/L		0.00073	0.00050	0.0217	0.00066	<0.00030
tungsten, total	7440-33-7	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
uranium, total	7440-61-1	E420	0.000010	mg/L		0.00320	0.00545	0.000318	0.00598	<0.000010
vanadium, total	7440-62-2	E420	0.00050	mg/L		<0.00050	<0.00050	0.00409	<0.00050	<0.00050
zinc, total	7440-66-6	E420	0.0030	mg/L		<0.0030	<0.0030	0.0115	<0.0030	<0.0030
zirconium, total	7440-67-7	E420	0.00020	mg/L		0.00077	0.00035	<0.00120 DLM	0.00038	<0.00020
Dissolved Metals										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L		0.0298	0.0100	0.0288	0.0127	<0.0010
antimony, dissolved	7440-36-0	E421	0.00010	mg/L		0.00030	0.00024	0.00094	0.00050	<0.00010
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L		0.00071	0.00063	0.00044	0.00072	<0.00010
barium, dissolved	7440-39-3	E421	0.00010	mg/L		0.0497	0.0721	0.0577	0.0464	<0.00010
beryllium, dissolved	7440-41-7	E421	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
boron, dissolved	7440-42-8	E421	0.010	mg/L		<0.010	<0.010	<0.010	0.011	<0.010
cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L		0.0000327	0.0000154	0.000113	0.0000297	<0.0000050
calcium, dissolved	7440-70-2	E421	0.050	mg/L		70.3	83.9	47.1	71.0	<0.050
cesium, dissolved	7440-46-2	E421	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000012	<0.000010
chromium, dissolved	7440-47-3	E421	0.00050	mg/L		<0.00050	<0.00050	0.00069	<0.00050	<0.00050
cobalt, dissolved	7440-48-4	E421	0.00010	mg/L		0.00032	0.00024	0.00053	0.00019	<0.00010
copper, dissolved	7440-50-8	E421	0.00020	mg/L		0.00242	0.00112	0.00232	0.00100	<0.00020
iron, dissolved	7439-89-6	E421	0.010	mg/L		0.111	0.077	0.132	0.142	<0.010
lead, dissolved	7439-92-1	E421	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
lithium, dissolved	7439-93-2	E421	0.0010	mg/L		0.0040	0.0035	<0.0010	0.0076	<0.0010
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L		44.5	59.4	18.5	72.1	<0.0050
manganese, dissolved	7439-96-5	E421	0.00010	mg/L		0.131	0.0906	0.135	0.0800	<0.00010
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	CC-202	R3	R8	R2	Fieldblank
					Client sampling date / time	11-Aug-2022 09:10	09-Aug-2022 18:15	10-Aug-2022 10:35	10-Aug-2022 12:00	10-Aug-2022 14:30
						WR2200854-016	WR2200854-017	WR2200854-018	WR2200854-019	WR2200854-020
						Result	Result	Result	Result	Result
Dissolved Metals										
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L		0.00113	0.00126	0.000903	0.000601	0.000062 RRV
nickel, dissolved	7440-02-0	E421	0.00050	mg/L		0.00425	0.00262	0.00461	0.00344	<0.00050
phosphorus, dissolved	7723-14-0	E421	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
potassium, dissolved	7440-09-7	E421	0.050	mg/L		0.623	0.810	0.069	0.857	<0.050
rubidium, dissolved	7440-17-7	E421	0.00020	mg/L		0.00024	<0.00020	<0.00020	0.00038	<0.00020
selenium, dissolved	7782-49-2	E421	0.000050	mg/L		0.00117	0.00191	0.000798	0.000359	<0.000050
silicon, dissolved	7440-21-3	E421	0.050	mg/L		3.92	5.03	5.54	5.44	<0.050
silver, dissolved	7440-22-4	E421	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
sodium, dissolved	7440-23-5	E421	0.050	mg/L		3.20	3.82	5.26	3.59	<0.050
strontium, dissolved	7440-24-6	E421	0.00020	mg/L		0.342	0.390	0.178	0.414	<0.00020
sulfur, dissolved	7704-34-9	E421	0.50	mg/L		79.9	102	46.4	107	<0.50
tellurium, dissolved	13494-80-9	E421	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
thallium, dissolved	7440-28-0	E421	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
thorium, dissolved	7440-29-1	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
tin, dissolved	7440-31-5	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
titanium, dissolved	7440-32-6	E421	0.00030	mg/L		0.00034	0.00031	0.00063	0.00030	<0.00030
tungsten, dissolved	7440-33-7	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
uranium, dissolved	7440-61-1	E421	0.000010	mg/L		0.00298	0.00588	0.000191	0.00578	<0.000010
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
zinc, dissolved	7440-66-6	E421	0.0010	mg/L		<0.0010	0.0015	0.0019	<0.0010	<0.0010
zirconium, dissolved	7440-67-7	E421	0.00020	mg/L		0.00066	0.00034	0.00056	0.00037	<0.00020
dissolved mercury filtration location	----	EP509	-	-		Field	Field	Field	Field	Field
dissolved metals filtration location	----	EP421	-	-		Field	Field	Field	Field	Field
Speciated Metals										
chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L		----	----	<0.00050	----	----
chromium, trivalent [Cr III], total	16065-83-1	EC535	0.00050	mg/L		----	----	0.00268	----	----

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

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	R9	TRAVEL BLANK	R11	E7	R6
					Client sampling date / time	10-Aug-2022 14:10	12-Aug-2022	09-Aug-2022 16:15	09-Aug-2022 09:45	09-Aug-2022
						WR2200854-021	WR2200854-022	WR2200854-023	WR2200854-024	WR2200854-025
						Result	Result	Result	Result	Result
Physical Tests										
conductivity	----	E100	2.0	µS/cm		558	<2.0	656	991	271
hardness (as CaCO3), dissolved	----	EC100	0.60	mg/L		306	----	357	602	134
hardness (as CaCO3), from total Ca/Mg	----	EC100A	0.60	mg/L		309	<0.60	364	585	132
pH	----	E108	0.10	pH units		7.91	5.53	8.07	8.17	8.01
solids, total suspended [TSS]	----	EPA 160.2	2	mg/L		see attached	----	see attached	see attached	see attached
solids, total suspended [TSS]	----	E160	3.0	mg/L		----	<3.0	----	----	----
Anions and Nutrients										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L		0.0098	<0.0050	0.0066	0.0118	<0.0050
bromide	24959-67-9	E235.Br-L	0.050	mg/L		<0.050	<0.050	<0.250 DLDS	<0.250 DLDS	<0.050
chloride	16887-00-6	E235.Cl	0.50	mg/L		<0.50	<0.50	<2.50 DLDS	<2.50 DLDS	0.86
fluoride	16984-48-8	E235.F	0.020	mg/L		0.088	<0.020	0.112	0.113	0.104
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L		0.0860	<0.0050	0.0628	0.0342	0.0291
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L		<0.0010	<0.0010	<0.0050 DLDS	<0.0050 DLDS	<0.0010
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L		0.0100	<0.0020	0.0093	0.0052	0.0062
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L		192	<0.30	256	392	65.8
Organic / Inorganic Carbon										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L		20.5	----	17.1	12.2	10.0
Total Metals										
aluminum, total	7429-90-5	E420	0.0030	mg/L		0.0279	<0.0030	0.0434	0.0123	0.112
antimony, total	7440-36-0	E420	0.00010	mg/L		0.00018	<0.00010	0.00020	0.00034	0.00012
arsenic, total	7440-38-2	E420	0.00010	mg/L		0.00059	<0.00010	0.00053	0.00086	0.00059
barium, total	7440-39-3	E420	0.00010	mg/L		0.0661	<0.00010	0.0515	0.0593	0.0463
beryllium, total	7440-41-7	E420	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
bismuth, total	7440-69-9	E420	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
boron, total	7440-42-8	E420	0.010	mg/L		<0.010	<0.010	<0.010	0.060	<0.010
cadmium, total	7440-43-9	E420	0.0000050	mg/L		0.0000271	<0.0000050	0.0000280	0.0000612	0.0000303
calcium, total	7440-70-2	E420	0.050	mg/L		71.3	<0.050	77.1	96.1	32.4
cesium, total	7440-46-2	E420	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000516	0.000018
chromium, total	7440-47-3	E420	0.00050	mg/L		0.00053	<0.00050	0.00071	0.00054	<0.00050
cobalt, total	7440-48-4	E420	0.00010	mg/L		0.00019	<0.00010	0.00013	0.00104	0.00037
copper, total	7440-50-8	E420	0.00050	mg/L		0.00265	<0.00050	0.00220	0.00142	0.00254

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	R9	TRAVEL BLANK	R11	E7	R6
					Client sampling date / time	10-Aug-2022 14:10	12-Aug-2022	09-Aug-2022 16:15	09-Aug-2022 09:45	09-Aug-2022
						WR2200854-021	WR2200854-022	WR2200854-023	WR2200854-024	WR2200854-025
						Result	Result	Result	Result	Result
Total Metals										
iron, total	7439-89-6	E420	0.010	mg/L		0.452	<0.010	0.112	0.480	0.250
lead, total	7439-92-1	E420	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
lithium, total	7439-93-2	E420	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0172	0.0050
magnesium, total	7439-95-4	E420	0.0050	mg/L		31.8	<0.0050	41.6	83.8	12.5
manganese, total	7439-96-5	E420	0.00010	mg/L		0.108	<0.00010	0.0131	0.456	0.0222
mercury, total	7439-97-6	E508	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
molybdenum, total	7439-98-7	E420	0.000050	mg/L		0.00131	<0.000050	0.00139	0.00174	0.000540
nickel, total	7440-02-0	E420	0.00050	mg/L		0.00255	<0.00050	0.00230	0.0186	0.00312
phosphorus, total	7723-14-0	E420	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
potassium, total	7440-09-7	E420	0.050	mg/L		0.483	<0.050	0.474	1.39	1.36
rubidium, total	7440-17-7	E420	0.00020	mg/L		<0.00020	<0.00020	<0.00020	0.00215	0.00147
selenium, total	7782-49-2	E420	0.000050	mg/L		0.00157	<0.000050	0.000933	0.000589	0.000224
silicon, total	7440-21-3	E420	0.10	mg/L		4.99	<0.10	5.82	4.96	4.87
silver, total	7440-22-4	E420	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
sodium, total	7440-23-5	E420	0.050	mg/L		2.72	<0.050	7.00	6.20	5.62
strontium, total	7440-24-6	E420	0.00020	mg/L		0.276	<0.00020	0.382	0.658	0.203
sulfur, total	7704-34-9	E420	0.50	mg/L		71.1	<0.50	96.6	152	23.5
tellurium, total	13494-80-9	E420	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
thallium, total	7440-28-0	E420	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
thorium, total	7440-29-1	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
tin, total	7440-31-5	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
titanium, total	7440-32-6	E420	0.00030	mg/L		0.00094	<0.00030	<0.00090 DLM	<0.00060 DLM	0.00142
tungsten, total	7440-33-7	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
uranium, total	7440-61-1	E420	0.000010	mg/L		0.000739	<0.000010	0.00233	0.00328	0.00134
vanadium, total	7440-62-2	E420	0.00050	mg/L		0.00055	<0.00050	0.00054	<0.00050	0.00089
zinc, total	7440-66-6	E420	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	0.0036
zirconium, total	7440-67-7	E420	0.00020	mg/L		0.00075	<0.00020	0.00081	0.00121	0.00043
Dissolved Metals										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L		0.0219	----	0.0214	0.0047	0.0741
antimony, dissolved	7440-36-0	E421	0.00010	mg/L		0.00016	----	0.00018	0.00033	0.00010
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L		0.00051	----	0.00044	0.00063	0.00048

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	R9	TRAVEL BLANK	R11	E7	R6
					Client sampling date / time	10-Aug-2022 14:10	12-Aug-2022	09-Aug-2022 16:15	09-Aug-2022 09:45	09-Aug-2022
						WR2200854-021	WR2200854-022	WR2200854-023	WR2200854-024	WR2200854-025
						Result	Result	Result	Result	Result
Dissolved Metals										
barium, dissolved	7440-39-3	E421	0.00010	mg/L		0.0642	----	0.0510	0.0611	0.0449
beryllium, dissolved	7440-41-7	E421	0.000100	mg/L		<0.000100	----	<0.000100	<0.000100	<0.000100
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L		<0.000050	----	<0.000050	<0.000050	<0.000050
boron, dissolved	7440-42-8	E421	0.010	mg/L		<0.010	----	<0.010	0.060	<0.010
cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L		0.0000254	----	0.0000297	0.0000569	0.0000258
calcium, dissolved	7440-70-2	E421	0.050	mg/L		72.8	----	75.6	104	33.2
cesium, dissolved	7440-46-2	E421	0.000010	mg/L		<0.000010	----	<0.000010	0.000505	0.000012
chromium, dissolved	7440-47-3	E421	0.00050	mg/L		0.00050	----	0.00059	<0.00050	<0.00050
cobalt, dissolved	7440-48-4	E421	0.00010	mg/L		0.00018	----	0.00010	0.00099	0.00032
copper, dissolved	7440-50-8	E421	0.00020	mg/L		0.00244	----	0.00204	0.00126	0.00224
iron, dissolved	7439-89-6	E421	0.010	mg/L		0.404	----	0.075	0.149	0.150
lead, dissolved	7439-92-1	E421	0.000050	mg/L		<0.000050	----	<0.000050	<0.000050	<0.000050
lithium, dissolved	7439-93-2	E421	0.0010	mg/L		<0.0010	----	<0.0010	0.0171	0.0051
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L		30.3	----	40.9	83.1	12.4
manganese, dissolved	7439-96-5	E421	0.00010	mg/L		0.0998	----	0.0116	0.450	0.0168
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L		<0.0000050	----	<0.0000050	<0.0000050	<0.0000050
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L		0.00121	----	0.00120	0.00169	0.000539
nickel, dissolved	7440-02-0	E421	0.00050	mg/L		0.00242	----	0.00225	0.0182	0.00282
phosphorus, dissolved	7723-14-0	E421	0.050	mg/L		<0.050	----	<0.050	<0.050	<0.050
potassium, dissolved	7440-09-7	E421	0.050	mg/L		0.398	----	0.413	1.21	1.18
rubidium, dissolved	7440-17-7	E421	0.00020	mg/L		<0.00020	----	<0.00020	0.00200	0.00130
selenium, dissolved	7782-49-2	E421	0.000050	mg/L		0.00141	----	0.000859	0.000601	0.000170
silicon, dissolved	7440-21-3	E421	0.050	mg/L		4.58	----	5.47	4.39	4.58
silver, dissolved	7440-22-4	E421	0.000010	mg/L		<0.000010	----	<0.000010	<0.000010	<0.000010
sodium, dissolved	7440-23-5	E421	0.050	mg/L		2.51	----	6.66	6.12	5.36
strontium, dissolved	7440-24-6	E421	0.00020	mg/L		0.253	----	0.346	0.644	0.188
sulfur, dissolved	7704-34-9	E421	0.50	mg/L		65.2	----	88.8	133	22.3
tellurium, dissolved	13494-80-9	E421	0.00020	mg/L		<0.00020	----	<0.00020	<0.00020	<0.00020
thallium, dissolved	7440-28-0	E421	0.000010	mg/L		<0.000010	----	<0.000010	<0.000010	<0.000010
thorium, dissolved	7440-29-1	E421	0.00010	mg/L		<0.00010	----	<0.00010	<0.00010	<0.00010
tin, dissolved	7440-31-5	E421	0.00010	mg/L		<0.00010	----	<0.00010	<0.00010	<0.00010

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	R9	TRAVEL BLANK	R11	E7	R6
					Client sampling date / time	10-Aug-2022 14:10	12-Aug-2022	09-Aug-2022 16:15	09-Aug-2022 09:45	09-Aug-2022
						WR2200854-021	WR2200854-022	WR2200854-023	WR2200854-024	WR2200854-025
						Result	Result	Result	Result	Result
Dissolved Metals										
titanium, dissolved	7440-32-6	E421	0.00030	mg/L		0.00076	----	0.00047	<0.00030	0.00045
tungsten, dissolved	7440-33-7	E421	0.00010	mg/L		<0.00010	----	<0.00010	<0.00010	<0.00010
uranium, dissolved	7440-61-1	E421	0.000010	mg/L		0.000731	----	0.00219	0.00328	0.00130
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L		<0.00050	----	<0.00050	<0.00050	0.00060
zinc, dissolved	7440-66-6	E421	0.0010	mg/L		<0.0010	----	<0.0010	0.0016	0.0028
zirconium, dissolved	7440-67-7	E421	0.00020	mg/L		0.00071	----	0.00072	0.00101	0.00038
dissolved mercury filtration location	----	EP509	-	-		Field	----	Field	Field	Field
dissolved metals filtration location	----	EP421	-	-		Field	----	Field	Field	Field

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

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	E8	HL3-M	HL3-T	HL3-B	----
					Client sampling date / time	09-Aug-2022	10-Aug-2022 18:05	10-Aug-2022 17:55	10-Aug-2022 18:15	----
						WR2200854-026	WR2200854-027	WR2200854-028	WR2200854-029	--------
						Result	Result	Result	Result	----
Physical Tests										
conductivity	----	E100	2.0	µS/cm		279	1080	622	1960	----
hardness (as CaCO3), dissolved	----	EC100	0.60	mg/L		140	673	355	1360	----
hardness (as CaCO3), from total Ca/Mg	----	EC100A	0.60	mg/L		138	651	352	1350	----
pH	----	E108	0.10	pH units		7.99	7.86	8.15	7.66	----
solids, total suspended [TSS]	----	EPA 160.2	2	mg/L		see attached	see attached	see attached	see attached	----
Anions and Nutrients										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L		<0.0050	0.928	0.0255	4.36	----
bromide	24959-67-9	E235.Br-L	0.050	mg/L		<0.050	<0.250 DLDS	<0.250 DLDS	<1.00 DLDS	----
chloride	16887-00-6	E235.Cl	0.50	mg/L		0.85	<2.50 DLDS	<2.50 DLDS	<10.0 DLDS	----
fluoride	16984-48-8	E235.F	0.020	mg/L		0.101	0.137	<0.100 DLDS	<0.400 DLDS	----
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L		0.0345	<0.0250 DLDS	0.121	<0.100 DLDS	----
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L		<0.0010	<0.0050 DLDS	<0.0050 DLDS	<0.0200 DLDS	----
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L		0.0063	0.0112	0.0081	0.753	----
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L		68.7	363	225	764	----
Organic / Inorganic Carbon										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L		9.91	19.6	17.3	31.2	----
Total Sulfides										
sulfide, total (as H2S)	7783-06-4	E395-H	0.011	mg/L		----	0.102	<0.011	0.101	----
sulfide, total (as S)	18496-25-8	E395-H	0.010	mg/L		----	0.096	<0.010	0.095	----
Total Metals										
aluminum, total	7429-90-5	E420	0.0030	mg/L		0.116	0.0739	0.0358	0.0987	----
antimony, total	7440-36-0	E420	0.00010	mg/L		0.00013	0.00014	0.00033	<0.00020 DLA	----
arsenic, total	7440-38-2	E420	0.00010	mg/L		0.00059	0.00433	0.00084	0.0109	----
barium, total	7440-39-3	E420	0.00010	mg/L		0.0465	0.130	0.0505	0.225	----
beryllium, total	7440-41-7	E420	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	----
bismuth, total	7440-69-9	E420	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000100 DLA	----
boron, total	7440-42-8	E420	0.010	mg/L		<0.010	0.014	0.011	0.024	----
cadmium, total	7440-43-9	E420	0.0000050	mg/L		0.0000217	0.0000276	0.0000364	<0.0000100 DLA	----
calcium, total	7440-70-2	E420	0.050	mg/L		33.4	129	68.1	274	----
cesium, total	7440-46-2	E420	0.000010	mg/L		0.000019	0.000028	<0.000010	0.000030	----
chromium, total	7440-47-3	E420	0.00050	mg/L		<0.00050	0.00113	<0.00050	0.00227	----

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	E8	HL3-M	HL3-T	HL3-B	----
					Client sampling date / time	09-Aug-2022	10-Aug-2022 18:05	10-Aug-2022 17:55	10-Aug-2022 18:15	----
						WR2200854-026	WR2200854-027	WR2200854-028	WR2200854-029	--------
						Result	Result	Result	Result	----
Total Metals										
cobalt, total	7440-48-4	E420	0.00010	mg/L		0.00042	0.00255	0.00035	0.00091	----
copper, total	7440-50-8	E420	0.00050	mg/L		0.00252	0.00071	0.00263	<0.00100 DLA	----
iron, total	7439-89-6	E420	0.010	mg/L		0.266	6.07	0.156	18.6	----
lead, total	7439-92-1	E420	0.000050	mg/L		<0.000050	0.000361	<0.000050	<0.000100 DLA	----
lithium, total	7439-93-2	E420	0.0010	mg/L		0.0051	0.0107	0.0042	0.0144	----
magnesium, total	7439-95-4	E420	0.0050	mg/L		13.4	79.9	44.3	162	----
manganese, total	7439-96-5	E420	0.00010	mg/L		0.0273	3.69	0.147	7.08	----
mercury, total	7439-97-6	E508	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
molybdenum, total	7439-98-7	E420	0.000050	mg/L		0.000573	0.000695	0.00130	0.000494	----
nickel, total	7440-02-0	E420	0.00050	mg/L		0.00330	0.00370	0.00448	0.00196	----
phosphorus, total	7723-14-0	E420	0.050	mg/L		<0.050	<0.050	<0.050	0.866	----
potassium, total	7440-09-7	E420	0.050	mg/L		1.35	1.42	0.741	2.78	----
rubidium, total	7440-17-7	E420	0.00020	mg/L		0.00140	0.00090	0.00025	0.00119	----
selenium, total	7782-49-2	E420	0.000050	mg/L		0.000184	0.000945	0.00112	0.000807	----
silicon, total	7440-21-3	E420	0.10	mg/L		4.89	7.16	4.19	10.3	----
silver, total	7440-22-4	E420	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000020 DLA	----
sodium, total	7440-23-5	E420	0.050	mg/L		5.55	7.09	3.35	10.1	----
strontium, total	7440-24-6	E420	0.00020	mg/L		0.211	0.760	0.379	1.63	----
sulfur, total	7704-34-9	E420	0.50	mg/L		24.8	134	84.0	291	----
tellurium, total	13494-80-9	E420	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00040 DLA	----
thallium, total	7440-28-0	E420	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000020 DLA	----
thorium, total	7440-29-1	E420	0.00010	mg/L		<0.00010	0.00014	<0.00010	<0.00020 DLA	----
tin, total	7440-31-5	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00020 DLA	----
titanium, total	7440-32-6	E420	0.00030	mg/L		0.00156	0.00317	0.00059	0.00694	----
tungsten, total	7440-33-7	E420	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00020 DLA	----
uranium, total	7440-61-1	E420	0.000010	mg/L		0.00135	0.00395	0.00305	0.00623	----
vanadium, total	7440-62-2	E420	0.00050	mg/L		0.00087	0.00322	<0.00050	0.00562	----
zinc, total	7440-66-6	E420	0.0030	mg/L		0.0040	0.482	<0.0030	<0.0060 DLA	----
zirconium, total	7440-67-7	E420	0.00020	mg/L		0.00043	0.00228	0.00079	0.00460	----
Dissolved Metals										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L		0.0746	0.0656	0.0309	0.0953	----

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	E8	HL3-M	HL3-T	HL3-B	----
					Client sampling date / time	09-Aug-2022	10-Aug-2022 18:05	10-Aug-2022 17:55	10-Aug-2022 18:15	----
						WR2200854-026	WR2200854-027	WR2200854-028	WR2200854-029	--------
						Result	Result	Result	Result	----
Dissolved Metals										
antimony, dissolved	7440-36-0	E421	0.00010	mg/L		0.00011	0.00010	0.00030	<0.00020 DLA	----
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L		0.00048	0.00413	0.00074	0.0104	----
barium, dissolved	7440-39-3	E421	0.00010	mg/L		0.0453	0.134	0.0501	0.224	----
beryllium, dissolved	7440-41-7	E421	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100 DLA	----
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000100 DLA	----
boron, dissolved	7440-42-8	E421	0.010	mg/L		<0.010	0.014	0.010	0.024	----
cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L		0.0000230	0.0000060	0.0000347	<0.0000100 DLA	----
calcium, dissolved	7440-70-2	E421	0.050	mg/L		34.2	133	70.1	284	----
cesium, dissolved	7440-46-2	E421	0.000010	mg/L		0.000014	0.000025	<0.000010	0.000026	----
chromium, dissolved	7440-47-3	E421	0.00050	mg/L		<0.00050	0.00104	<0.00050	0.00226	----
cobalt, dissolved	7440-48-4	E421	0.00010	mg/L		0.00032	0.00243	0.00033	0.00086	----
copper, dissolved	7440-50-8	E421	0.00020	mg/L		0.00223	0.00021	0.00240	<0.00040 DLA	----
iron, dissolved	7439-89-6	E421	0.010	mg/L		0.153	5.97	0.113	18.1	----
lead, dissolved	7439-92-1	E421	0.000050	mg/L		<0.000050	0.000069	<0.000050	<0.000100 DLA	----
lithium, dissolved	7439-93-2	E421	0.0010	mg/L		0.0052	0.0105	0.0042	0.0139	----
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L		13.2	82.8	43.7	158	----
manganese, dissolved	7439-96-5	E421	0.00010	mg/L		0.0208	3.71	0.136	6.99	----
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L		0.000538	0.000592	0.00121	0.000452	----
nickel, dissolved	7440-02-0	E421	0.00050	mg/L		0.00299	0.00356	0.00429	0.00177	----
phosphorus, dissolved	7723-14-0	E421	0.050	mg/L		<0.050	<0.050	<0.050	0.768	----
potassium, dissolved	7440-09-7	E421	0.050	mg/L		1.16	1.35	0.627	2.44	----
rubidium, dissolved	7440-17-7	E421	0.00020	mg/L		0.00140	0.00088	0.00027	0.00110	----
selenium, dissolved	7782-49-2	E421	0.000050	mg/L		0.000176	0.00105	0.00118	0.000670	----
silicon, dissolved	7440-21-3	E421	0.050	mg/L		4.48	6.80	3.93	9.73	----
silver, dissolved	7440-22-4	E421	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000020 DLA	----
sodium, dissolved	7440-23-5	E421	0.050	mg/L		5.18	6.70	3.25	9.37	----
strontium, dissolved	7440-24-6	E421	0.00020	mg/L		0.200	0.713	0.358	1.52	----
sulfur, dissolved	7704-34-9	E421	0.50	mg/L		22.3	125	76.7	274	----
tellurium, dissolved	13494-80-9	E421	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00040 DLA	----
thallium, dissolved	7440-28-0	E421	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000020 DLA	----

Analytical Results

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

					Client sample ID	E8	HL3-M	HL3-T	HL3-B	----
					Client sampling date / time	09-Aug-2022	10-Aug-2022 18:05	10-Aug-2022 17:55	10-Aug-2022 18:15	----
Analyte	CAS Number	Method	LOR	Unit		WR2200854-026	WR2200854-027	WR2200854-028	WR2200854-029	--------
						Result	Result	Result	Result	----
Dissolved Metals										
thorium, dissolved	7440-29-1	E421	0.00010	mg/L		<0.00010	0.00013	<0.00010	<0.00020 DLA	----
tin, dissolved	7440-31-5	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00020 DLA	----
titanium, dissolved	7440-32-6	E421	0.00030	mg/L		0.00047	0.00299	0.00042	0.00669	----
tungsten, dissolved	7440-33-7	E421	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00020 DLA	----
uranium, dissolved	7440-61-1	E421	0.000010	mg/L		0.00132	0.00383	0.00302	0.00615	----
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L		0.00062	0.00297	<0.00050	0.00519	----
zinc, dissolved	7440-66-6	E421	0.0010	mg/L		0.0029	0.0029	<0.0010	0.0020	----
zirconium, dissolved	7440-67-7	E421	0.00020	mg/L		0.00039	0.00212	0.00070	0.00440	----
dissolved mercury filtration location	----	EP509	-	-		Field	Field	Field	Field	----
dissolved metals filtration location	----	EP421	-	-		Field	Field	Field	Field	----
Speciated Metals										
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.00050	mg/L		----	<0.00050	----	<0.00050	----
chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L		----	<0.00050	----	<0.00050	----
chromium, trivalent [Cr III], dissolved	16065-83-1	EC535A	0.00050	mg/L		----	0.00104	----	0.00226	----
chromium, trivalent [Cr III], total	16065-83-1	EC535	0.00050	mg/L		----	0.00113	----	0.00227	----
Aggregate Organics										
biochemical oxygen demand [BOD]	----	E550	2.0	mg/L		----	<2.0	<2.0	2.0	----

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

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WR2200854**	Page	: 1 of 64
Amendment	: 1		
Client	: **EDI Environmental Dynamics Inc.**	Laboratory	: Whitehorse - Environmental
Contact	: Lyndsay Doetzel	Account Manager	: Heather McKenzie
Address	: 2195 2nd Avenue Whitehorse YT Canada Y1A 3T8	Address	: #12 151 Industrial Road Whitehorse, Yukon Canada Y1A 2V3
Telephone	: 867 393 4882	Telephone	: +1 867 668 6689
Project	: 20Y0150 Clinton Creek	Date Samples Received	: 12-Aug-2022 11:50
PO	: ----	Issue Date	: 16-Sep-2022 15:41
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Q77741		
No. of samples received	: 29		
No. of samples analysed	: 29		

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

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO: Data Quality Objective.

LOR: Limit of Reporting (detection limit).

RPD: Relative Percent Difference.

Workorder Comments

TSS analysis performed by the ALS Cincinnati OH laboratory for Health & Safety reasons due to possibility of Asbestos content present during the filter drying process. Note: The required Asbestos analysis (TEM) for selected samples will also be sent to ALS Cincinnati.
Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

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

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

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

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

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

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

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE HL3-B	E550	10-Aug-2022	----	----	----		15-Aug-2022	3 days	5 days	× EHT
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE HL3-M	E550	10-Aug-2022	----	----	----		15-Aug-2022	3 days	5 days	× EHT
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE HL3-T	E550	10-Aug-2022	----	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) E7	E298	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) E8	E298	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) R11	E298	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) R6	E298	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	10 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CC-201	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CC-202	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) E1	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) E1(H)	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GWCC-1	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GWCC-2	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GWCC-3	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GWCC-4	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GWCC-5	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
R7	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
SL	E298	11-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
Fieldblank	E298	10-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	13 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
R1	E298	10-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	13 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
R2	E298	10-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	13 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
R8	E298	10-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	13 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
E2	E298	09-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	14 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
E3	E298	09-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	14 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
E4	E298	09-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	14 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
R3	E298	09-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	14 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
R4	E298	09-Aug-2022	18-Aug-2022	----	----		23-Aug-2022	28 days	14 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
TRAVEL BLANK	E298	12-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
HL3-B	E298	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
HL3-M	E298	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
HL3-T	E298	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
R9	E298	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE										
TRAVEL BLANK	E235.Br-L	12-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	3 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE										
CC-201	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE CC-202	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE E1	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE E1(H)	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE GWCC-1	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE GWCC-2	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE GWCC-3	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE GWCC-4	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE GWCC-5	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R7	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE SL	E235.Br-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE Fieldblank	E235.Br-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE HL3-B	E235.Br-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE HL3-M	E235.Br-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE HL3-T	E235.Br-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R1	E235.Br-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R2	E235.Br-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R8	E235.Br-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R9	E235.Br-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE E2	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE E3	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE E4	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE E8	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R11	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R3	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R4	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE R6	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE E7	E235.Br-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	7 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE TRAVEL BLANK	E235.Cl	12-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE CC-201	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE CC-202	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE E1	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE E1(H)	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GWCC-1	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GWCC-2	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GWCC-3	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GWCC-4	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE GWCC-5	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE R7	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE SL	E235.Cl	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE Fieldblank	E235.Cl	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE HL3-B	E235.Cl	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE HL3-M	E235.Cl	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE HL3-T	E235.Cl	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE R1	E235.Cl	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE R2	E235.Cl	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE R8	E235.Cl	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE R9	E235.Cl	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE E2	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE E3	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE E4	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE E8	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE R11	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE R3	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE R4	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE R6	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE E7	E235.Cl	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	7 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE TRAVEL BLANK	E235.F	12-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE CC-201	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE CC-202	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE E1	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE E1(H)	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE GWCC-1	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE GWCC-2	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE GWCC-3	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE GWCC-4	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE GWCC-5	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE R7	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SL	E235.F	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE Fieldblank	E235.F	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HL3-B	E235.F	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HL3-M	E235.F	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE HL3-T	E235.F	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE R1	E235.F	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE R2	E235.F	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE R8	E235.F	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE R9	E235.F	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE E2	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE E3	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE E4	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE E8	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE R11	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE R3	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE R4	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE R6	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE E7	E235.F	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	7 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE TRAVEL BLANK	E235.NO3-L	12-Aug-2022	15-Aug-2022	3 days	3 days	✓	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CC-201	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CC-202	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE E1	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE E1(H)	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GWCC-1	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GWCC-2	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GWCC-3	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GWCC-4	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GWCC-5	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R7	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SL	E235.NO3-L	11-Aug-2022	15-Aug-2022	3 days	4 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE Fieldblank	E235.NO3-L	10-Aug-2022	15-Aug-2022	3 days	5 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE HL3-B	E235.NO3-L	10-Aug-2022	15-Aug-2022	3 days	5 days	× EHT	15-Aug-2022	3 days	0 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE HL3-M	E235.NO3-L	10-Aug-2022	15-Aug-2022	3 days	5 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE HL3-T	E235.NO3-L	10-Aug-2022	15-Aug-2022	3 days	5 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R1	E235.NO3-L	10-Aug-2022	15-Aug-2022	3 days	5 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R2	E235.NO3-L	10-Aug-2022	15-Aug-2022	3 days	5 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R8	E235.NO3-L	10-Aug-2022	15-Aug-2022	3 days	5 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R9	E235.NO3-L	10-Aug-2022	15-Aug-2022	3 days	5 days	× EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE E2	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	6 days	× EHTL	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE E3	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	6 days	× EHTL	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE E4	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	6 days	× EHTL	15-Aug-2022	3 days	0 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE E8	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	6 days	✖ EHTL	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R11	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	6 days	✖ EHTL	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R4	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	6 days	✖ EHTL	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R6	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	6 days	✖ EHTL	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE R3	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	6 days	✖ EHT	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE E7	E235.NO3-L	09-Aug-2022	15-Aug-2022	3 days	7 days	✖ EHTL	15-Aug-2022	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE TRAVEL BLANK	E235.NO2-L	12-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	3 days	✖ EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CC-201	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	✖ EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CC-202	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	✖ EHT

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE E1	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE E1(H)	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GWCC-1	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GWCC-2	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GWCC-3	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GWCC-4	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GWCC-5	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE R7	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SL	E235.NO2-L	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	4 days	× EHT

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
Fieldblank	E235.NO2-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
HL3-B	E235.NO2-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
HL3-M	E235.NO2-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
HL3-T	E235.NO2-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
R1	E235.NO2-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
R2	E235.NO2-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
R8	E235.NO2-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
R9	E235.NO2-L	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
E2	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	6 days	× EHTL

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE E3	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	6 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE E4	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	6 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE E8	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	6 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE R11	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	6 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE R4	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	6 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE R6	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	6 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE R3	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE E7	E235.NO2-L	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	3 days	7 days	× EHTL
Anions and Nutrients : Sulfate in Water by IC										
HDPE TRAVEL BLANK	E235.SO4	12-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	3 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE CC-201	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE CC-202	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE E1	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE E1(H)	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GWCC-1	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GWCC-2	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GWCC-3	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GWCC-4	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GWCC-5	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE R7	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SL	E235.SO4	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Fieldblank	E235.SO4	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE HL3-B	E235.SO4	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE HL3-M	E235.SO4	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE HL3-T	E235.SO4	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE R1	E235.SO4	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE R2	E235.SO4	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE R8	E235.SO4	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE R9	E235.SO4	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE E2	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE E3	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE E4	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE E8	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE R11	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE R3	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE R4	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE R6	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
E7	E235.SO4	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
E7	E372-U	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
E8	E372-U	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
Fieldblank	E372-U	10-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
R1	E372-U	10-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
R11	E372-U	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
R2	E372-U	10-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
R6	E372-U	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
R8	E372-U	10-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	10 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) E2	E372-U	09-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	11 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) E3	E372-U	09-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	11 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) E4	E372-U	09-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	11 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) R3	E372-U	09-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	11 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) R4	E372-U	09-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	11 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) TRAVEL BLANK	E372-U	12-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CC-201	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CC-202	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) E1	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
E1(H)	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GWCC-1	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GWCC-2	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GWCC-3	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GWCC-4	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GWCC-5	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
HL3-B	E372-U	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
HL3-M	E372-U	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
HL3-T	E372-U	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) R7	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) R9	E372-U	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SL	E372-U	11-Aug-2022	18-Aug-2022	----	----		20-Aug-2022	28 days	9 days	✓
Asbestos/Other Fibres : Asbestos by Transmission Electron Microscopy (TEM) in million										
HDPE E2	EPA 100.2mf	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Asbestos/Other Fibres : Asbestos by Transmission Electron Microscopy (TEM) in million										
HDPE E3	EPA 100.2mf	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Asbestos/Other Fibres : Asbestos by Transmission Electron Microscopy (TEM) in million										
HDPE R1	EPA 100.2mf	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Asbestos/Other Fibres : Asbestos by Transmission Electron Microscopy (TEM) in million										
HDPE R3	EPA 100.2mf	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CC-201	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CC-202	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
E1	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
E1(H)	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GWCC-1	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GWCC-2	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GWCC-3	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GWCC-4	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GWCC-5	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R7	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SL	E509	11-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	19 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
Fieldblank	E509	10-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	20 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
HL3-B	E509	10-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	20 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
HL3-M	E509	10-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	20 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
HL3-T	E509	10-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	20 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R1	E509	10-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	20 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R2	E509	10-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	20 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R8	E509	10-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	20 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R9	E509	10-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	20 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
E2	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
E3	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
E4	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
E7	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
E8	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R11	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R3	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R4	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
R6	E509	09-Aug-2022	30-Aug-2022	----	----		30-Aug-2022	28 days	21 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
E4	E421	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	10 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) E7	E421	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) E8	E421	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) R11	E421	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) R3	E421	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) R4	E421	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) R6	E421	09-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) CC-201	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) E1	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GWCC-1	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GWCC-2	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GWCC-3	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GWCC-4	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GWCC-5	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) R7	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) SL	E421	11-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) CC-202	E421	11-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) E1(H)	E421	11-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) E2	E421	09-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	9 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
E3	E421	09-Aug-2022	16-Aug-2022	----	----		18-Aug-2022	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
Fieldblank	E421	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
HL3-B	E421	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
HL3-M	E421	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
HL3-T	E421	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
R1	E421	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
R2	E421	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
R8	E421	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
R9	E421	10-Aug-2022	18-Aug-2022	----	----		19-Aug-2022	180 days	9 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CC-201	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CC-202	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) E1	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) E1(H)	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GWCC-1	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GWCC-2	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GWCC-3	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GWCC-4	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GWCC-5	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) R7	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SL	E358-L	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) Fieldblank	E358-L	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) HL3-B	E358-L	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) HL3-M	E358-L	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) HL3-T	E358-L	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) R1	E358-L	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) R2	E358-L	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) R8	E358-L	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	8 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) R9	E358-L	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) E2	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) E3	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) E4	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) E7	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) E8	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) R11	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) R3	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) R4	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
R6	E358-L	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE										
TRAVEL BLANK	E100	12-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE										
CC-201	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE										
CC-202	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE										
E1	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE										
E1(H)	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE										
GWCC-1	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE										
GWCC-2	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE										
GWCC-3	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE GWCC-4	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE GWCC-5	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE R7	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SL	E100	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE Fieldblank	E100	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE HL3-B	E100	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE HL3-M	E100	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE HL3-T	E100	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE R1	E100	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE R2	E100	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE R8	E100	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE R9	E100	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE E2	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE E3	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE E4	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE E8	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE R11	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE R3	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE R4	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE R6	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE E7	E100	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	28 days	7 days	✓
Physical Tests : pH by Meter										
HDPE TRAVEL BLANK	E108	12-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTL
Physical Tests : pH by Meter										
HDPE E7	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE E8	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE HL3-B	E108	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE HL3-M	E108	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE HL3-T	E108	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTR-FM

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE R11	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE R6	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE R9	E108	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CC-201	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CC-202	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE E1	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE E1(H)	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE E2	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE E3	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE E4	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE Fieldblank	E108	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GWCC-1	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GWCC-2	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GWCC-3	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GWCC-4	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GWCC-5	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE R1	E108	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE R2	E108	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE R3	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE R4	E108	09-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE R7	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE R8	E108	10-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SL	E108	11-Aug-2022	15-Aug-2022	----	----		15-Aug-2022	0.25 hrs	0.73 hrs	× EHTR-FM
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE CC-201	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE CC-202	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE E1	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE E1(H)	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE E2	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE E3	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE E4	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE E7	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE E8	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE Fieldblank	EPA 160.2	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE GWCC-1	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE GWCC-2	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE GWCC-3	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE GWCC-4	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE GWCC-5	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE HL3-B	EPA 160.2	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE HL3-M	EPA 160.2	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE HL3-T	EPA 160.2	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R1	EPA 160.2	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R11	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R2	EPA 160.2	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R3	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R4	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R6	EPA 160.2	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R7	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R8	EPA 160.2	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE R9	EPA 160.2	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS with Asbestos Control by Gravimetry										
HDPE SL	EPA 160.2	11-Aug-2022	----	----	----		30-Aug-2022	----	----	
Physical Tests : TSS by Gravimetry										
HDPE TRAVEL BLANK	E160	12-Aug-2022	----	----	----		14-Sep-2022	7 days	33 days	× EHT
Sample Preparation : Asbestos by Transmission Electron Microscopy (TEM) in million fibres/L										
HDPE E2	EPA 100.2mf	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Sample Preparation : Asbestos by Transmission Electron Microscopy (TEM) in million fibres/L										
HDPE E3	EPA 100.2mf	09-Aug-2022	----	----	----		30-Aug-2022	----	----	

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Sample Preparation : Asbestos by Transmission Electron Microscopy (TEM) in million fibres/L										
HDPE										
R1	EPA 100.2mf	10-Aug-2022	----	----	----		30-Aug-2022	----	----	
Sample Preparation : Asbestos by Transmission Electron Microscopy (TEM) in million fibres/L										
HDPE										
R3	EPA 100.2mf	09-Aug-2022	----	----	----		30-Aug-2022	----	----	
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - dissolved (sodium hydroxide)										
GWCC-1	E532A	11-Aug-2022	----	----	----		08-Sep-2022	28 days	28 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - dissolved (sodium hydroxide)										
GWCC-2	E532A	11-Aug-2022	----	----	----		08-Sep-2022	28 days	28 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - dissolved (sodium hydroxide)										
SL	E532A	11-Aug-2022	----	----	----		08-Sep-2022	28 days	28 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - dissolved (sodium hydroxide)										
HL3-B	E532A	10-Aug-2022	----	----	----		08-Sep-2022	28 days	29 days	× EHT
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - dissolved (sodium hydroxide)										
HL3-M	E532A	10-Aug-2022	----	----	----		08-Sep-2022	28 days	29 days	× EHT
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - dissolved (sodium hydroxide)										
R7	E532A	11-Aug-2022	----	----	----		08-Sep-2022	28 days	29 days	× EHT
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide)										
GWCC-1	E532	11-Aug-2022	----	----	----		08-Sep-2022	28 days	28 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) GWCC-2	E532	11-Aug-2022	----	----	----		08-Sep-2022	28 days	28 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) R7	E532	11-Aug-2022	----	----	----		08-Sep-2022	28 days	28 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) SL	E532	11-Aug-2022	----	----	----		08-Sep-2022	28 days	28 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) HL3-B	E532	10-Aug-2022	----	----	----		08-Sep-2022	28 days	29 days	× EHT
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) HL3-M	E532	10-Aug-2022	----	----	----		08-Sep-2022	28 days	29 days	× EHT
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) E3	E532	09-Aug-2022	----	----	----		08-Sep-2022	28 days	30 days	× EHT
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) R8	E532	10-Aug-2022	----	----	----		08-Sep-2022	28 days	30 days	× EHT
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) TRAVEL BLANK	E508	12-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	14 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CC-201	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CC-202	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) E1	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) E1(H)	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GWCC-1	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GWCC-2	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GWCC-3	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GWCC-4	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GWCC-5	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R7	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SL	E508	11-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) Fieldblank	E508	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	16 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) HL3-B	E508	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	16 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) HL3-M	E508	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	16 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) HL3-T	E508	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	16 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R1	E508	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	16 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R2	E508	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	16 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R8	E508	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	16 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R9	E508	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	16 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) E2	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) E3	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) E4	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) E7	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) E8	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R11	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R3	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R4	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) R6	E508	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	28 days	17 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) E2	E420	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) E3	E420	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) E4	E420	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R3	E420	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R4	E420	09-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) TRAVEL BLANK	E420	12-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) HL3-B	E420	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	16 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) HL3-M	E420	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	16 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) HL3-T	E420	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	16 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R9	E420	10-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	17 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) E7	E420	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	18 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) E8	E420	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	18 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R11	E420	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	18 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R6	E420	09-Aug-2022	26-Aug-2022	----	----		26-Aug-2022	180 days	18 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) CC-201	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) CC-202	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) E1	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) E1(H)	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GWCC-1	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GWCC-2	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GWCC-3	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GWCC-4	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GWCC-5	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R7	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) SL	E420	11-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) Fieldblank	E420	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R1	E420	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	9 days	✓

Matrix: **Water**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R2	E420	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) R8	E420	10-Aug-2022	18-Aug-2022	----	----		18-Aug-2022	180 days	9 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) HL3-B	E395-H	10-Aug-2022	----	----	----		16-Aug-2022	7 days	5 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) HL3-M	E395-H	10-Aug-2022	----	----	----		16-Aug-2022	7 days	6 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) HL3-T	E395-H	10-Aug-2022	----	----	----		16-Aug-2022	7 days	6 days	✓

Legend & Qualifier Definitions

EHT: Exceeded ALS recommended hold time prior to analysis.

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

Quality Control Parameter Frequency Compliance

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

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Ammonia by Fluorescence	E298	608359	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	603422	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	603522	2	33	6.0	5.0	✓
Chloride in Water by IC	E235.Cl	603521	2	33	6.0	5.0	✓
Conductivity in Water	E100	603518	2	33	6.0	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	638773	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	625744	2	28	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	603774	3	37	8.1	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	608357	2	28	7.1	5.0	✓
Fluoride in Water by IC	E235.F	603519	2	33	6.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	603524	2	33	6.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	603523	2	33	6.0	5.0	✓
pH by Meter	E108	603517	2	33	6.0	5.0	✓
Sulfate in Water by IC	E235.SO4	603520	2	33	6.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	638771	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	621249	2	29	6.9	5.0	✓
Total Metals in Water by CRC ICPMS	E420	605129	3	40	7.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	608358	2	39	5.1	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395-H	604048	1	19	5.2	5.0	✓
TSS by Gravimetry	E160	647205	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Ammonia by Fluorescence	E298	608359	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	603422	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	603522	2	33	6.0	5.0	✓
Chloride in Water by IC	E235.Cl	603521	2	33	6.0	5.0	✓
Conductivity in Water	E100	603518	2	33	6.0	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	638773	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	625744	2	28	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	603774	3	37	8.1	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	608357	2	28	7.1	5.0	✓
Fluoride in Water by IC	E235.F	603519	2	33	6.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	603524	2	33	6.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	603523	2	33	6.0	5.0	✓
pH by Meter	E108	603517	2	33	6.0	5.0	✓
Sulfate in Water by IC	E235.SO4	603520	2	33	6.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	638771	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	621249	2	29	6.9	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Metals in Water by CRC ICPMS	E420	605129	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	608358	2	39	5.1	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395-H	604048	1	19	5.2	5.0	✓
TSS by Gravimetry	E160	647205	1	20	5.0	5.0	✓
Method Blanks (MB)							
Ammonia by Fluorescence	E298	608359	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	603422	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	603522	2	33	6.0	5.0	✓
Chloride in Water by IC	E235.Cl	603521	2	33	6.0	5.0	✓
Conductivity in Water	E100	603518	2	33	6.0	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	638773	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	625744	2	28	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	603774	3	37	8.1	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	608357	2	28	7.1	5.0	✓
Fluoride in Water by IC	E235.F	603519	2	33	6.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	603524	2	33	6.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	603523	2	33	6.0	5.0	✓
Sulfate in Water by IC	E235.SO4	603520	2	33	6.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	638771	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	621249	2	29	6.9	5.0	✓
Total Metals in Water by CRC ICPMS	E420	605129	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	608358	2	39	5.1	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395-H	604048	1	19	5.2	5.0	✓
TSS by Gravimetry	E160	647205	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	608359	2	39	5.1	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	603522	2	33	6.0	5.0	✓
Chloride in Water by IC	E235.Cl	603521	2	33	6.0	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	638773	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	625744	2	28	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	603774	3	37	8.1	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	608357	2	28	7.1	5.0	✓
Fluoride in Water by IC	E235.F	603519	2	33	6.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	603524	2	33	6.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	603523	2	33	6.0	5.0	✓
Sulfate in Water by IC	E235.SO4	603520	2	33	6.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	638771	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	621249	2	29	6.9	5.0	✓
Total Metals in Water by CRC ICPMS	E420	605129	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	608358	2	39	5.1	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Sulfide by Colourimetry (Automated Flow)	E395-H	604048	1	19	5.2	5.0	✓

Methodology References and Summaries

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

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Vancouver - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Vancouver - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry	E160 Vancouver - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Bromide in Water by IC (Low Level)	E235.Br-L Vancouver - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC	E235.Cl Vancouver - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F Vancouver - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Vancouver - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Vancouver - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Vancouver - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Ammonia by Fluorescence	E298 Vancouver - Environmental	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Vancouver - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Vancouver - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Sulfide by Colourimetry (Automated Flow)	E395-H Vancouver - Environmental	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methlyene blue colourimetric method. Results expressed "as H2S" if reported represent the maximum possible H2S concentration based on the total sulfide concentration in the sample. The H2S calculation converts Total Sulphide as (S2-) and reports it as Total Sulphide as (H2S)
Total Metals in Water by CRC ICPMS	E420 Vancouver - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 Vancouver - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 Vancouver - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Vancouver - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Total Hexavalent Chromium (Cr VI) by IC	E532 Vancouver - Environmental	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A Vancouver - Environmental	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. sample pretreatment involved field or lab filtration following by sample preservation.
Biochemical Oxygen Demand - 5 day	E550 Vancouver - Environmental	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Hardness (Calculated)	EC100 Vancouver - Environmental	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Vancouver - Environmental	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Total Trivalent Chromium (Cr III) by Calculation	EC535 Vancouver - Environmental	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results.The Limit of Reporting for Chromium (III) varies as a function of the test results.
Dissolved Trivalent Chromium (Cr III) by Calculation	EC535A Vancouver - Environmental	Water	APHA 3030B/6020A/EPA 7196A (mod)	Dissolved Chromium (III) is calculated as the difference between Dissolved Chromium and Dissolved Hexavalent Chromium (Cr VI) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
Asbestos by Transmission Electron Microscopy (TEM) in million fibres/L	EPA 100.2mf Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Water	EPA 100.2	Asbestos fibers are identified by using morphology, selected area electron diffraction (SAED) and energy dispersive x-ray analysis (EDXA).
TSS with Asbestos Control by Gravimetry	EPA 160.2 Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Water	EPA 160.2	A well-mixed sample is filtered through a glass fiber filter, and the residue retained on the filter is dried to a constant weight at 103-105°C

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Vancouver - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Vancouver - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
	Vancouver - Environmental			
Dissolved Metals Water Filtration	EP421 Vancouver - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Vancouver - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **WR2200854**	Page	: 1 of 34
Amendment	: **1**		
Client	: EDI Environmental Dynamics Inc.	Laboratory	: Whitehorse - Environmental
Contact	: Lyndsay Doetzel	Account Manager	: Heather McKenzie
Address	: 2195 2nd Avenue Whitehorse YT Canada Y1A 3T8	Address	: #12 151 Industrial Road Whitehorse, Yukon Canada Y1A 2V3
Telephone	: 867 393 4882	Telephone	: +1 867 668 6689
Project	: 20Y0150 Clinton Creek	Date Samples Received	: 12-Aug-2022 11:50
PO	: ----	Date Analysis Commenced	: 15-Aug-2022
C-O-C number	: ----	Issue Date	: 16-Sep-2022 15:41
Sampler	: ----		
Site	: ----		
Quote number	: Q77741		
No. of samples received	: 29		
No. of samples analysed	: 29		

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Angela Ren	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
Angelo Salandanan	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Cindy Tang	Team Leader - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
Erin Sanchez		Vancouver Metals, Burnaby, British Columbia
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Ophelia Chiu	Department Manager - Organics	Vancouver Inorganics, Burnaby, British Columbia
Paolo Obillo	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio
Qammar Almas	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

TSS analysis performed by the ALS Cincinnati OH laboratory for Health & Safety reasons due to possibility of Asbestos content present during the filter drying process. Note: The required Asbestos analysis (TEM) for selected samples will also be sent to ALS Cincinnati.
Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 603517)											
WR2200854-001	CC-201	pH	----	E108	0.10	pH units	8.15	8.16	0.123%	4%	----
Physical Tests (QC Lot: 603518)											
WR2200854-001	CC-201	conductivity	----	E100	2.0	µS/cm	641	647	0.932%	10%	----
Physical Tests (QC Lot: 603563)											
FJ2202126-003	Anonymous	pH	----	E108	0.10	pH units	7.94	7.95	0.126%	4%	----
Physical Tests (QC Lot: 603565)											
FJ2202126-003	Anonymous	conductivity	----	E100	2.0	µS/cm	125	123	1.05%	10%	----
Physical Tests (QC Lot: 647205)											
FJ2202519-001	Anonymous	solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603519)											
WR2200854-001	CC-201	fluoride	16984-48-8	E235.F	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603520)											
WR2200854-001	CC-201	sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	231	232	0.299%	20%	----
Anions and Nutrients (QC Lot: 603521)											
WR2200854-001	CC-201	chloride	16887-00-6	E235.Cl	2.50	mg/L	<2.50	<2.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603522)											
WR2200854-001	CC-201	bromide	24959-67-9	E235.Br-L	0.250	mg/L	<0.250	<0.250	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603523)											
WR2200854-001	CC-201	nitrite (as N)	14797-65-0	E235.NO2-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603524)											
WR2200854-001	CC-201	nitrate (as N)	14797-55-8	E235.NO3-L	0.0250	mg/L	0.0442	0.0466	0.0023	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603566)											
FJ2202126-001	Anonymous	fluoride	16984-48-8	E235.F	0.100	mg/L	0.113	0.111	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603567)											
FJ2202126-001	Anonymous	chloride	16887-00-6	E235.Cl	2.50	mg/L	<2.50	<2.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603568)											
FJ2202126-001	Anonymous	bromide	24959-67-9	E235.Br-L	0.250	mg/L	<0.250	<0.250	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603569)											
FJ2202126-001	Anonymous	nitrate (as N)	14797-55-8	E235.NO3-L	0.0250	mg/L	0.0686	0.0709	0.0022	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 603570)											
FJ2202126-001	Anonymous	nitrite (as N)	14797-65-0	E235.NO2-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Anions and Nutrients (QC Lot: 603571)											
FJ2202126-001	Anonymous	sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	104	105	0.902%	20%	----
Anions and Nutrients (QC Lot: 608358)											
WR2200854-001	CC-201	phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0058	0.0056	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 608359)											
WR2200854-001	CC-201	ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0136	0.0127	0.0008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 608554)											
FJ2202138-001	Anonymous	phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0035	0.0034	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 608555)											
FJ2202138-001	Anonymous	ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 608357)											
WR2200854-001	CC-201	carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	15.1	16.1	6.54%	20%	----
Organic / Inorganic Carbon (QC Lot: 608557)											
WR2200854-021	R9	carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	20.5	21.6	5.20%	20%	----
Total Sulfides (QC Lot: 604048)											
EO2206383-001	Anonymous	sulfide, total (as S)	18496-25-8	E395-H	0.010	mg/L	0.057	0.060	0.003	Diff <2x LOR	----
Total Metals (QC Lot: 605129)											
WR2200854-001	CC-201	aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0206	0.0214	0.0007	Diff <2x LOR	----
		antimony, total	7440-36-0	E420	0.00010	mg/L	0.00034	0.00034	0.000002	Diff <2x LOR	----
		arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00088	0.00089	0.000007	Diff <2x LOR	----
		barium, total	7440-39-3	E420	0.00010	mg/L	0.0497	0.0498	0.327%	20%	----
		beryllium, total	7440-41-7	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, total	7440-42-8	E420	0.010	mg/L	0.013	0.013	0.000007	Diff <2x LOR	----
		cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000348	0.0000396	0.0000048	Diff <2x LOR	----
		calcium, total	7440-70-2	E420	0.050	mg/L	71.3	71.7	0.464%	20%	----
		cesium, total	7440-46-2	E420	0.000010	mg/L	0.000105	0.000108	2.90%	20%	----
		chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00022	0.00022	0.000003	Diff <2x LOR	----
		copper, total	7440-50-8	E420	0.00050	mg/L	0.00221	0.00220	0.00001	Diff <2x LOR	----
		iron, total	7439-89-6	E420	0.010	mg/L	0.078	0.078	0.000000009	Diff <2x LOR	----
		lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, total	7439-93-2	E420	0.0010	mg/L	0.0045	0.0046	0.00007	Diff <2x LOR	----
		magnesium, total	7439-95-4	E420	0.0050	mg/L	45.3	46.6	2.79%	20%	----
		manganese, total	7439-96-5	E420	0.00010	mg/L	0.0384	0.0391	2.00%	20%	----
		molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00135	0.00139	2.35%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 605129) - continued											
WR2200854-001	CC-201	nickel, total	7440-02-0	E420	0.00050	mg/L	0.00731	0.00747	2.05%	20%	----
		phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		potassium, total	7440-09-7	E420	0.050	mg/L	0.734	0.744	1.30%	20%	----
		rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00042	0.00040	0.00001	Diff <2x LOR	----
		selenium, total	7782-49-2	E420	0.000050	mg/L	0.00100	0.00106	5.82%	20%	----
		silicon, total	7440-21-3	E420	0.10	mg/L	4.01	4.00	0.404%	20%	----
		silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, total	7440-23-5	E420	0.050	mg/L	3.53	3.55	0.359%	20%	----
		strontium, total	7440-24-6	E420	0.00020	mg/L	0.385	0.380	1.37%	20%	----
		sulfur, total	7704-34-9	E420	0.50	mg/L	84.9	86.5	1.83%	20%	----
		tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		thallium, total	7440-28-0	E420	0.000010	mg/L	0.000017	0.000018	0.000001	Diff <2x LOR	----
		thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		uranium, total	7440-61-1	E420	0.000010	mg/L	0.00283	0.00291	2.71%	20%	----
		vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00062	0.00062	0.000003	Diff <2x LOR	----
Total Metals (QC Lot: 615711)											
YL2201220-004	Anonymous	aluminum, total	7429-90-5	E420	0.0030	mg/L	0.298	0.312	4.59%	20%	----
		chromium, total	7440-47-3	E420	0.00050	mg/L	0.00119	0.00125	0.00006	Diff <2x LOR	----
		titanium, total	7440-32-6	E420	0.00030	mg/L	0.0190	0.0226	17.1%	20%	----
YL2201220-004	Anonymous	antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00020	0.00020	0.000004	Diff <2x LOR	----
		barium, total	7440-39-3	E420	0.00010	mg/L	0.0364	0.0370	1.78%	20%	----
		beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, total	7440-42-8	E420	0.010	mg/L	0.508	0.512	0.798%	20%	----
		cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000129	0.0000167	0.0000038	Diff <2x LOR	----
		calcium, total	7440-70-2	E420	0.050	mg/L	128	126	1.05%	20%	----
		cesium, total	7440-46-2	E420	0.000010	mg/L	0.000081	0.000090	0.000009	Diff <2x LOR	----
		cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00117	0.00119	1.64%	20%	----
		copper, total	7440-50-8	E420	0.00050	mg/L	0.00198	0.00209	0.00011	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 615711) - continued											
YL2201220-004	Anonymous	iron, total	7439-89-6	E420	0.010	mg/L	0.385	0.468	19.4%	20%	----
		lead, total	7439-92-1	E420	0.000050	mg/L	0.000106	0.000132	0.000026	Diff <2x LOR	----
		lithium, total	7439-93-2	E420	0.0010	mg/L	0.0100	0.0101	0.827%	20%	----
		magnesium, total	7439-95-4	E420	0.0050	mg/L	64.9	63.5	2.20%	20%	----
		manganese, total	7439-96-5	E420	0.00010	mg/L	0.178	0.177	0.904%	20%	----
		molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.0146	0.0147	0.387%	20%	----
		nickel, total	7440-02-0	E420	0.00050	mg/L	0.0150	0.0153	2.03%	20%	----
		phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		potassium, total	7440-09-7	E420	0.050	mg/L	13.0	13.1	1.18%	20%	----
		rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0125	0.0130	3.48%	20%	----
		selenium, total	7782-49-2	E420	0.000050	mg/L	0.000192	0.000173	0.000019	Diff <2x LOR	----
		silicon, total	7440-21-3	E420	0.10	mg/L	3.81	3.82	0.261%	20%	----
		silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, total	7440-23-5	E420	0.050	mg/L	52.8	51.2	3.17%	20%	----
		strontium, total	7440-24-6	E420	0.00020	mg/L	0.995	1.00	0.520%	20%	----
		sulfur, total	7704-34-9	E420	0.50	mg/L	136	132	3.00%	20%	----
		tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		thallium, total	7440-28-0	E420	0.000010	mg/L	0.000016	0.000017	0.000001	Diff <2x LOR	----
		thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		uranium, total	7440-61-1	E420	0.000010	mg/L	0.00530	0.00538	1.47%	20%	----
		vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00081	0.00100	0.00018	Diff <2x LOR	----
		zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	0.00021	0.00001	Diff <2x LOR	----
Total Metals (QC Lot: 621249)											
WR2200854-001	CC-201	mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 621250)											
WR2200854-021	R9	mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 603774)											
WR2200840-001	Anonymous	aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0044	0.0048	0.0003	Diff <2x LOR	----
		antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00024	0.00024	0.000003	Diff <2x LOR	----
		arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00108	0.00110	1.88%	20%	----
		barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0221	0.0234	5.88%	20%	----
		beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 603774) - continued											
WR2200840-001	Anonymous	bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, dissolved	7440-42-8	E421	0.010	mg/L	0.010	0.010	0.0002	Diff <2x LOR	----
		cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000120	0.0000119	0.0000002	Diff <2x LOR	----
		calcium, dissolved	7440-70-2	E421	0.050	mg/L	79.1	80.6	1.86%	20%	----
		cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000325	0.000339	4.22%	20%	----
		chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00073	0.00077	0.00004	Diff <2x LOR	----
		copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00024	0.00024	0.000003	Diff <2x LOR	----
		iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0084	0.0085	0.00007	Diff <2x LOR	----
		magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	14.5	15.0	3.28%	20%	----
		manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.319	0.329	2.88%	20%	----
		molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.0107	0.0108	1.13%	20%	----
		nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00226	0.00234	0.00009	Diff <2x LOR	----
		phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		potassium, dissolved	7440-09-7	E421	0.050	mg/L	27.9	27.9	0.190%	20%	----
		rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0295	0.0301	1.78%	20%	----
		selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00122	0.00134	9.42%	20%	----
		silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.79	2.82	1.06%	20%	----
		silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, dissolved	7440-23-5	E421	0.050	mg/L	46.8	47.8	2.16%	20%	----
		strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.813	0.834	2.49%	20%	----
		sulfur, dissolved	7704-34-9	E421	0.50	mg/L	113	113	0.156%	20%	----
		tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00029	0.00030	0.00001	Diff <2x LOR	----
		uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000873	0.000906	3.71%	20%	----
		vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0308	0.0312	1.22%	20%	----
		zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 603781)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 603781) - continued											
WR2200854-012	R4	aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0110	0.0096	13.5%	20%	----
		antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00034	0.00032	0.00001	Diff <2x LOR	----
		arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00186	0.00187	0.684%	20%	----
		barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0538	0.0564	4.72%	20%	----
		beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000946	0.0000831	12.9%	20%	----
		calcium, dissolved	7440-70-2	E421	0.050	mg/L	99.3	96.0	3.36%	20%	----
		cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000064	0.000066	0.000001	Diff <2x LOR	----
		chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00031	0.00032	0.00001	Diff <2x LOR	----
		copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00167	0.00167	0.000004	Diff <2x LOR	----
		iron, dissolved	7439-89-6	E421	0.010	mg/L	0.125	0.131	4.24%	20%	----
		lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0054	0.0051	0.0003	Diff <2x LOR	----
		magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	53.4	54.2	1.38%	20%	----
		manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0864	0.0862	0.211%	20%	----
		molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00148	0.00151	1.44%	20%	----
		nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00874	0.00884	1.20%	20%	----
		phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.551	0.577	4.50%	20%	----
		rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00036	0.00035	0.00002	Diff <2x LOR	----
		selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00139	0.00145	4.55%	20%	----
		silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.06	5.07	0.257%	20%	----
		silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, dissolved	7440-23-5	E421	0.050	mg/L	5.44	5.70	4.62%	20%	----
		strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.535	0.527	1.47%	20%	----
		sulfur, dissolved	7704-34-9	E421	0.50	mg/L	94.6	94.3	0.322%	20%	----
		tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 603781) - continued											
WR2200854-012	R4	uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00523	0.00533	1.92%	20%	----
		vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0022	0.0020	0.0002	Diff <2x LOR	----
		zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	0.00069	0.00069	0.000002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 610584)											
WR2200854-001	CC-201	aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0166	0.0152	8.48%	20%	----
		antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00031	0.00030	0.000006	Diff <2x LOR	----
		arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00080	0.00078	0.00002	Diff <2x LOR	----
		barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0473	0.0486	2.72%	20%	----
		beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, dissolved	7440-42-8	E421	0.010	mg/L	0.012	0.011	0.0003	Diff <2x LOR	----
		cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000365	0.0000305	0.0000061	Diff <2x LOR	----
		calcium, dissolved	7440-70-2	E421	0.050	mg/L	69.2	71.3	2.98%	20%	----
		cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000096	0.000096	0.0000009	Diff <2x LOR	----
		chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00019	0.00020	0.000008	Diff <2x LOR	----
		copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00204	0.00208	1.82%	20%	----
		iron, dissolved	7439-89-6	E421	0.010	mg/L	0.057	0.057	0.0005	Diff <2x LOR	----
		lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0042	0.0041	0.00010	Diff <2x LOR	----
		magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	44.8	45.7	1.84%	20%	----
		manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0284	0.0293	3.01%	20%	----
		molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00124	0.00125	1.22%	20%	----
		nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00713	0.00716	0.418%	20%	----
		phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.631	0.630	0.168%	20%	----
		rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00034	0.00039	0.00006	Diff <2x LOR	----
		selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000968	0.00105	8.19%	20%	----
		silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.71	3.73	0.658%	20%	----
		silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, dissolved	7440-23-5	E421	0.050	mg/L	3.36	3.26	2.92%	20%	----
		strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.338	0.351	3.88%	20%	----
		sulfur, dissolved	7704-34-9	E421	0.50	mg/L	78.5	78.3	0.349%	20%	----
		tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 610584) - continued											
WR2200854-001	CC-201	thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000018	0.000018	0.0000004	Diff <2x LOR	----
		thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00270	0.00274	1.36%	20%	----
		vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	0.00056	0.00056	0.000001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 625744)											
WR2200854-001	CC-201	mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 625745)											
WR2200854-021	R9	mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 638771)											
VA22C1286-001	Anonymous	chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 638773)											
VA22C1324-001	Anonymous	chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 603422)											
VA22B8883-002	Anonymous	biochemical oxygen demand [BOD]	----	E550	60.0	mg/L	255	235	8.0%	30%	----

Method Blank (MB) Report

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

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 603518)						
conductivity	----	E100	1	µS/cm	1.4	----
Physical Tests (QCLot: 603565)						
conductivity	----	E100	1	µS/cm	1.3	----
Physical Tests (QCLot: 647205)						
solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 603519)						
fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 603520)						
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 603521)						
chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 603522)						
bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 603523)						
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 603524)						
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 603566)						
fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 603567)						
chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 603568)						
bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 603569)						
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 603570)						
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 603571)						
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 608358)						
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 608359)						
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 608554)						
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 608555)						
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Organic / Inorganic Carbon (QCLot: 608357)						
carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 608557)						
carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 604048)						
sulfide, total (as S)	18496-25-8	E395-H	0.01	mg/L	<0.010	----
Total Metals (QCLot: 605129)						
aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 605129) - continued						
sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 615711)						
aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 615711) - continued						
rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 621249)						
mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 621250)						
mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 603774)						
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 603774) - continued						
lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 603781)						
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 603781) - continued						
chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 610584)						
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 610584) - continued						
boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 625744)						
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 625745)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 625745) - continued						
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 638771)						
chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Speciated Metals (QCLot: 638773)						
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 603422)						
biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----

Laboratory Control Sample (LCS) Report

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

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 603517)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 603518)									
conductivity	----	E100	1	µS/cm	146.9 µS/cm	94.8	90.0	110	----
Physical Tests (QCLot: 603563)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 603565)									
conductivity	----	E100	1	µS/cm	146.9 µS/cm	95.0	90.0	110	----
Physical Tests (QCLot: 647205)									
solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 603519)									
fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 603520)									
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 603521)									
chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 603522)									
bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	96.4	85.0	115	----
Anions and Nutrients (QCLot: 603523)									
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.7	90.0	110	----
Anions and Nutrients (QCLot: 603524)									
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 603566)									
fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 603567)									
chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 603568)									
bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	98.3	85.0	115	----
Anions and Nutrients (QCLot: 603569)									
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 603570)									
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.3	90.0	110	----
Anions and Nutrients (QCLot: 603571)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 603571) - continued									
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 608358)									
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	92.2	80.0	120	----
Anions and Nutrients (QCLot: 608359)									
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	94.3	85.0	115	----
Anions and Nutrients (QCLot: 608554)									
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	91.1	80.0	120	----
Anions and Nutrients (QCLot: 608555)									
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	103	85.0	115	----
Organic / Inorganic Carbon (QCLot: 608357)									
carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	107	80.0	120	----
Organic / Inorganic Carbon (QCLot: 608557)									
carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.8	80.0	120	----
Total Sulfides (QCLot: 604048)									
sulfide, total (as H2S)	7783-06-4	E395-H	----	mg/L	0.085 mg/L	108	80.0	120	----
sulfide, total (as S)	18496-25-8	E395-H	0.01	mg/L	0.08 mg/L	108	80.0	120	----
Total Metals (QCLot: 605129)									
aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.2	80.0	120	----
cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	105	80.0	120	----
chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	109	80.0	120	----
lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	105	80.0	120	----
magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 605129) - continued									
manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	102	80.0	120	----
potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	112	80.0	120	----
rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	103	80.0	120	----
silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.8	80.0	120	----
sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	----
tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.8	80.0	120	----
tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	94.0	80.0	120	----
zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Total Metals (QCLot: 615711)									
aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.4	80.0	120	----
bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	94.6	80.0	120	----
boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.7	80.0	120	----
cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.2	80.0	120	----
calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.8	80.0	120	----
cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	106	80.0	120	----
chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	98.1	80.0	120	----
cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	95.4	80.0	120	----
copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.3	80.0	120	----
iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	99.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 615711) - continued									
lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	102	80.0	120	----
manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.5	80.0	120	----
phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	103	80.0	120	----
silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	98.9	80.0	120	----
sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	101	80.0	120	----
tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	91.9	80.0	120	----
tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.5	80.0	120	----
titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	93.3	80.0	120	----
tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	97.8	80.0	120	----
uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----
zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.1	80.0	120	----
Total Metals (QCLot: 621249)									
mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	95.1	80.0	120	----
Total Metals (QCLot: 621250)									
mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	95.4	80.0	120	----
Dissolved Metals (QCLot: 603774)									
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	93.4	80.0	120	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.5	80.0	120	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	90.9	80.0	120	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 603774) - continued									
boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.4	80.0	120	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	93.8	80.0	120	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	93.5	80.0	120	----
cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	94.7	80.0	120	----
chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	94.0	80.0	120	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	91.8	80.0	120	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	94.0	80.0	120	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.2	80.0	120	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	88.6	80.0	120	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	92.6	80.0	120	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	96.5	80.0	120	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.7	80.0	120	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	94.0	80.0	120	----
phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	94.5	80.0	120	----
rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	92.2	80.0	120	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.3	80.0	120	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	89.0	80.0	120	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	94.4	80.0	120	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	95.0	80.0	120	----
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.4	80.0	120	----
tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.2	80.0	120	----
thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	93.8	80.0	120	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	94.2	80.0	120	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.8	80.0	120	----
tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.5	80.0	120	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.8	80.0	120	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	95.8	80.0	120	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.6	80.0	120	----
zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.6	80.0	120	----
Dissolved Metals (QCLot: 603781)									
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	97.3	80.0	120	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.0	80.0	120	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.0	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 603781) - continued									
barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	94.7	80.0	120	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	93.9	80.0	120	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.7	80.0	120	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	95.3	80.0	120	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	92.7	80.0	120	----
cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	92.2	80.0	120	----
chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	96.0	80.0	120	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	92.8	80.0	120	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	90.6	80.0	120	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.7	80.0	120	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.6	80.0	120	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.0	80.0	120	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	96.0	80.0	120	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	93.7	80.0	120	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	96.7	80.0	120	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	94.2	80.0	120	----
phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	88.0	80.0	120	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	92.7	80.0	120	----
rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.0	80.0	120	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.9	80.0	120	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	87.2	80.0	120	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.9	80.0	120	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	90.4	80.0	120	----
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.4	80.0	120	----
thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.6	80.0	120	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	92.9	80.0	120	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.5	80.0	120	----
tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.0	80.0	120	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	96.8	80.0	120	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	95.6	80.0	120	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.8	80.0	120	----
zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	90.8	80.0	120	----
Dissolved Metals (QCLot: 610584)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 610584) - continued									
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	97.7	80.0	120	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	90.8	80.0	120	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	94.8	80.0	120	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	94.0	80.0	120	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.0	80.0	120	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	91.7	80.0	120	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	98.6	80.0	120	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	93.2	80.0	120	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.0	80.0	120	----
cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	87.5	80.0	120	----
chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	94.5	80.0	120	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	94.1	80.0	120	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	92.9	80.0	120	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	89.0	80.0	120	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	93.0	80.0	120	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.9	80.0	120	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	97.6	80.0	120	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	94.4	80.0	120	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	92.4	80.0	120	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	93.6	80.0	120	----
phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	91.4	80.0	120	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	92.8	80.0	120	----
rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	96.9	80.0	120	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.6	80.0	120	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	90.4	80.0	120	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	82.1	80.0	120	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.4	80.0	120	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	86.1	80.0	120	----
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	92.1	80.0	120	----
tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	90.5	80.0	120	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.8	80.0	120	----
thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	84.3	80.0	120	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	89.8	80.0	120	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	93.8	80.0	120	----
tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	92.5	80.0	120	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	93.8	80.0	120	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	95.2	80.0	120	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 610584) - continued									
zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	83.1	80.0	120	----
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	104	80.0	120	----
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Speciated Metals (QCLot: 638771)									
chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	104	90.0	110	----
Speciated Metals (QCLot: 638773)									
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Aggregate Organics (QCLot: 603422)									
biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	100	85.0	115	----

Matrix Spike (MS) Report

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

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 603519)										
WR2200854-002	E1	fluoride	16984-48-8	E235.F	4.59 mg/L	5 mg/L	91.8	75.0	125	----
Anions and Nutrients (QCLot: 603520)										
WR2200854-002	E1	sulfate (as SO4)	14808-79-8	E235.SO4	468 mg/L	500 mg/L	93.6	75.0	125	----
Anions and Nutrients (QCLot: 603521)										
WR2200854-002	E1	chloride	16887-00-6	E235.Cl	464 mg/L	500 mg/L	92.8	75.0	125	----
Anions and Nutrients (QCLot: 603522)										
WR2200854-002	E1	bromide	24959-67-9	E235.Br-L	2.28 mg/L	2.5 mg/L	91.4	75.0	125	----
Anions and Nutrients (QCLot: 603523)										
WR2200854-002	E1	nitrite (as N)	14797-65-0	E235.NO2-L	2.28 mg/L	2.5 mg/L	91.1	75.0	125	----
Anions and Nutrients (QCLot: 603524)										
WR2200854-002	E1	nitrate (as N)	14797-55-8	E235.NO3-L	11.8 mg/L	12.5 mg/L	94.5	75.0	125	----
Anions and Nutrients (QCLot: 603566)										
FJ2202126-002	Anonymous	fluoride	16984-48-8	E235.F	4.48 mg/L	5 mg/L	89.6	75.0	125	----
Anions and Nutrients (QCLot: 603567)										
FJ2202126-002	Anonymous	chloride	16887-00-6	E235.Cl	467 mg/L	500 mg/L	93.4	75.0	125	----
Anions and Nutrients (QCLot: 603568)										
FJ2202126-002	Anonymous	bromide	24959-67-9	E235.Br-L	2.33 mg/L	2.5 mg/L	93.3	75.0	125	----
Anions and Nutrients (QCLot: 603569)										
FJ2202126-002	Anonymous	nitrate (as N)	14797-55-8	E235.NO3-L	11.8 mg/L	12.5 mg/L	94.1	75.0	125	----
Anions and Nutrients (QCLot: 603570)										
FJ2202126-002	Anonymous	nitrite (as N)	14797-65-0	E235.NO2-L	2.30 mg/L	2.5 mg/L	92.0	75.0	125	----
Anions and Nutrients (QCLot: 603571)										
FJ2202126-002	Anonymous	sulfate (as SO4)	14808-79-8	E235.SO4	466 mg/L	500 mg/L	93.3	75.0	125	----
Anions and Nutrients (QCLot: 608358)										
WR2200854-002	E1	phosphorus, total	7723-14-0	E372-U	0.0475 mg/L	0.05 mg/L	94.9	70.0	130	----
Anions and Nutrients (QCLot: 608359)										
WR2200854-002	E1	ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 608554)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 608554) - continued										
FJ2202138-002	Anonymous	phosphorus, total	7723-14-0	E372-U	0.0474 mg/L	0.05 mg/L	94.7	70.0	130	----
Anions and Nutrients (QCLot: 608555)										
FJ2202138-002	Anonymous	ammonia, total (as N)	7664-41-7	E298	0.105 mg/L	0.1 mg/L	105	75.0	125	----
Organic / Inorganic Carbon (QCLot: 608357)										
WR2200854-002	E1	carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 608557)										
WR2200854-023	R11	carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Sulfides (QCLot: 604048)										
EO2206383-002	Anonymous	sulfide, total (as S)	18496-25-8	E395-H	1.06 mg/L	1 mg/L	106	75.0	125	----
Total Metals (QCLot: 605129)										
WR2200854-002	E1	aluminum, total	7429-90-5	E420	0.194 mg/L	0.2 mg/L	96.9	70.0	130	----
		antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		arsenic, total	7440-38-2	E420	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		beryllium, total	7440-41-7	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		bismuth, total	7440-69-9	E420	0.00949 mg/L	0.01 mg/L	94.9	70.0	130	----
		boron, total	7440-42-8	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		cadmium, total	7440-43-9	E420	0.00390 mg/L	0.004 mg/L	97.4	70.0	130	----
		calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		cesium, total	7440-46-2	E420	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		chromium, total	7440-47-3	E420	0.0385 mg/L	0.04 mg/L	96.3	70.0	130	----
		cobalt, total	7440-48-4	E420	0.0190 mg/L	0.02 mg/L	95.0	70.0	130	----
		copper, total	7440-50-8	E420	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		iron, total	7439-89-6	E420	1.92 mg/L	2 mg/L	96.2	70.0	130	----
		lead, total	7439-92-1	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		lithium, total	7439-93-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		molybdenum, total	7439-98-7	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		nickel, total	7440-02-0	E420	0.0374 mg/L	0.04 mg/L	93.6	70.0	130	----
		phosphorus, total	7723-14-0	E420	10.0 mg/L	10 mg/L	100	70.0	130	----
		potassium, total	7440-09-7	E420	4.04 mg/L	4 mg/L	101	70.0	130	----
		rubidium, total	7440-17-7	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		selenium, total	7782-49-2	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		silicon, total	7440-21-3	E420	9.83 mg/L	10 mg/L	98.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 605129) - continued										
WR2200854-002	E1	silver, total	7440-22-4	E420	0.00384 mg/L	0.004 mg/L	95.9	70.0	130	----
		sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		tellurium, total	13494-80-9	E420	0.0394 mg/L	0.04 mg/L	98.4	70.0	130	----
		thallium, total	7440-28-0	E420	0.00378 mg/L	0.004 mg/L	94.4	70.0	130	----
		thorium, total	7440-29-1	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		tin, total	7440-31-5	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		titanium, total	7440-32-6	E420	0.0392 mg/L	0.04 mg/L	98.1	70.0	130	----
		tungsten, total	7440-33-7	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		uranium, total	7440-61-1	E420	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		vanadium, total	7440-62-2	E420	0.0998 mg/L	0.1 mg/L	99.8	70.0	130	----
		zinc, total	7440-66-6	E420	0.351 mg/L	0.4 mg/L	87.7	70.0	130	----
		zirconium, total	7440-67-7	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
Total Metals (QCLot: 615711)										
YL2201220-005	Anonymous	aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		antimony, total	7440-36-0	E420	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		arsenic, total	7440-38-2	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		beryllium, total	7440-41-7	E420	0.0373 mg/L	0.04 mg/L	93.3	70.0	130	----
		bismuth, total	7440-69-9	E420	0.00914 mg/L	0.01 mg/L	91.4	70.0	130	----
		boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		cadmium, total	7440-43-9	E420	0.00370 mg/L	0.004 mg/L	92.4	70.0	130	----
		calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		cesium, total	7440-46-2	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		chromium, total	7440-47-3	E420	0.0383 mg/L	0.04 mg/L	95.8	70.0	130	----
		cobalt, total	7440-48-4	E420	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		copper, total	7440-50-8	E420	0.0184 mg/L	0.02 mg/L	92.2	70.0	130	----
		iron, total	7439-89-6	E420	1.85 mg/L	2 mg/L	92.6	70.0	130	----
		lead, total	7439-92-1	E420	0.0185 mg/L	0.02 mg/L	92.6	70.0	130	----
		lithium, total	7439-93-2	E420	0.0953 mg/L	0.1 mg/L	95.3	70.0	130	----
		magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		molybdenum, total	7439-98-7	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		nickel, total	7440-02-0	E420	0.0361 mg/L	0.04 mg/L	90.3	70.0	130	----
		phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 615711) - continued										
YL2201220-005	Anonymous	potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		rubidium, total	7440-17-7	E420	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		selenium, total	7782-49-2	E420	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		silicon, total	7440-21-3	E420	9.46 mg/L	10 mg/L	94.6	70.0	130	----
		silver, total	7440-22-4	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		tellurium, total	13494-80-9	E420	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		thallium, total	7440-28-0	E420	0.00363 mg/L	0.004 mg/L	90.8	70.0	130	----
		thorium, total	7440-29-1	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		tin, total	7440-31-5	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		titanium, total	7440-32-6	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		tungsten, total	7440-33-7	E420	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		uranium, total	7440-61-1	E420	ND mg/L	0.004 mg/L	ND	70.0	130	----
		vanadium, total	7440-62-2	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		zinc, total	7440-66-6	E420	0.365 mg/L	0.4 mg/L	91.2	70.0	130	----
		zirconium, total	7440-67-7	E420	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
Total Metals (QCLot: 621249)										
WR2200854-002	E1	mercury, total	7439-97-6	E508	0.0000953 mg/L	0.0001 mg/L	95.3	70.0	130	----
Total Metals (QCLot: 621250)										
WR2200854-022	TRAVEL BLANK	mercury, total	7439-97-6	E508	0.0000955 mg/L	0.0001 mg/L	95.5	70.0	130	----
Dissolved Metals (QCLot: 603774)										
WR2200844-003	Anonymous	aluminum, dissolved	7429-90-5	E421	0.193 mg/L	0.2 mg/L	96.4	70.0	130	----
		antimony, dissolved	7440-36-0	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		arsenic, dissolved	7440-38-2	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		barium, dissolved	7440-39-3	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		beryllium, dissolved	7440-41-7	E421	0.0378 mg/L	0.04 mg/L	94.4	70.0	130	----
		bismuth, dissolved	7440-69-9	E421	0.00851 mg/L	0.01 mg/L	85.1	70.0	130	----
		boron, dissolved	7440-42-8	E421	0.097 mg/L	0.1 mg/L	96.9	70.0	130	----
		cadmium, dissolved	7440-43-9	E421	0.00385 mg/L	0.004 mg/L	96.3	70.0	130	----
		calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		chromium, dissolved	7440-47-3	E421	0.0390 mg/L	0.04 mg/L	97.5	70.0	130	----
		cobalt, dissolved	7440-48-4	E421	0.0183 mg/L	0.02 mg/L	91.6	70.0	130	----
		copper, dissolved	7440-50-8	E421	0.0183 mg/L	0.02 mg/L	91.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 603774) - continued										
WR2200844-003	Anonymous	iron, dissolved	7439-89-6	E421	1.86 mg/L	2 mg/L	93.1	70.0	130	----
		lead, dissolved	7439-92-1	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		lithium, dissolved	7439-93-2	E421	0.0901 mg/L	0.1 mg/L	90.1	70.0	130	----
		magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		molybdenum, dissolved	7439-98-7	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		nickel, dissolved	7440-02-0	E421	0.0370 mg/L	0.04 mg/L	92.4	70.0	130	----
		phosphorus, dissolved	7723-14-0	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		potassium, dissolved	7440-09-7	E421	3.78 mg/L	4 mg/L	94.5	70.0	130	----
		rubidium, dissolved	7440-17-7	E421	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		selenium, dissolved	7782-49-2	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		silicon, dissolved	7440-21-3	E421	9.30 mg/L	10 mg/L	93.0	70.0	130	----
		silver, dissolved	7440-22-4	E421	0.00372 mg/L	0.004 mg/L	93.1	70.0	130	----
		sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		tellurium, dissolved	13494-80-9	E421	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		thallium, dissolved	7440-28-0	E421	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		thorium, dissolved	7440-29-1	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		tin, dissolved	7440-31-5	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		titanium, dissolved	7440-32-6	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		tungsten, dissolved	7440-33-7	E421	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		zinc, dissolved	7440-66-6	E421	0.376 mg/L	0.4 mg/L	94.0	70.0	130	----
		zirconium, dissolved	7440-67-7	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 603781)										
WR2200854-013	E4	aluminum, dissolved	7429-90-5	E421	0.191 mg/L	0.2 mg/L	95.7	70.0	130	----
		antimony, dissolved	7440-36-0	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		arsenic, dissolved	7440-38-2	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		beryllium, dissolved	7440-41-7	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		bismuth, dissolved	7440-69-9	E421	0.00954 mg/L	0.01 mg/L	95.4	70.0	130	----
		boron, dissolved	7440-42-8	E421	0.099 mg/L	0.1 mg/L	99.0	70.0	130	----
		cadmium, dissolved	7440-43-9	E421	0.00406 mg/L	0.004 mg/L	101	70.0	130	----
		calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 603781) - continued										
WR2200854-013	E4	cesium, dissolved	7440-46-2	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		chromium, dissolved	7440-47-3	E421	0.0384 mg/L	0.04 mg/L	95.9	70.0	130	----
		cobalt, dissolved	7440-48-4	E421	0.0187 mg/L	0.02 mg/L	93.3	70.0	130	----
		copper, dissolved	7440-50-8	E421	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		iron, dissolved	7439-89-6	E421	1.96 mg/L	2 mg/L	97.9	70.0	130	----
		lead, dissolved	7439-92-1	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		lithium, dissolved	7439-93-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		molybdenum, dissolved	7439-98-7	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		nickel, dissolved	7440-02-0	E421	0.0360 mg/L	0.04 mg/L	90.1	70.0	130	----
		phosphorus, dissolved	7723-14-0	E421	9.42 mg/L	10 mg/L	94.2	70.0	130	----
		potassium, dissolved	7440-09-7	E421	3.82 mg/L	4 mg/L	95.5	70.0	130	----
		rubidium, dissolved	7440-17-7	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		selenium, dissolved	7782-49-2	E421	0.0426 mg/L	0.04 mg/L	107	70.0	130	----
		silicon, dissolved	7440-21-3	E421	9.30 mg/L	10 mg/L	93.0	70.0	130	----
		silver, dissolved	7440-22-4	E421	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		tellurium, dissolved	13494-80-9	E421	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		thallium, dissolved	7440-28-0	E421	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		thorium, dissolved	7440-29-1	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		tin, dissolved	7440-31-5	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		titanium, dissolved	7440-32-6	E421	0.0397 mg/L	0.04 mg/L	99.4	70.0	130	----
		tungsten, dissolved	7440-33-7	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		uranium, dissolved	7440-61-1	E421	0.00459 mg/L	0.004 mg/L	115	70.0	130	----
		vanadium, dissolved	7440-62-2	E421	0.0989 mg/L	0.1 mg/L	98.9	70.0	130	----
		zinc, dissolved	7440-66-6	E421	0.398 mg/L	0.4 mg/L	99.4	70.0	130	----
		zirconium, dissolved	7440-67-7	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 610584)										
WR2200854-002	E1	aluminum, dissolved	7429-90-5	E421	0.188 mg/L	0.2 mg/L	94.2	70.0	130	----
		antimony, dissolved	7440-36-0	E421	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		arsenic, dissolved	7440-38-2	E421	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		beryllium, dissolved	7440-41-7	E421	0.0383 mg/L	0.04 mg/L	95.7	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 610584) - continued										
WR2200854-002	E1	bismuth, dissolved	7440-69-9	E421	0.00868 mg/L	0.01 mg/L	86.8	70.0	130	----
		boron, dissolved	7440-42-8	E421	0.096 mg/L	0.1 mg/L	96.0	70.0	130	----
		cadmium, dissolved	7440-43-9	E421	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		cesium, dissolved	7440-46-2	E421	0.00968 mg/L	0.01 mg/L	96.8	70.0	130	----
		chromium, dissolved	7440-47-3	E421	0.0380 mg/L	0.04 mg/L	95.1	70.0	130	----
		cobalt, dissolved	7440-48-4	E421	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	----
		copper, dissolved	7440-50-8	E421	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		iron, dissolved	7439-89-6	E421	1.91 mg/L	2 mg/L	95.3	70.0	130	----
		lead, dissolved	7439-92-1	E421	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		lithium, dissolved	7439-93-2	E421	0.0976 mg/L	0.1 mg/L	97.6	70.0	130	----
		magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		molybdenum, dissolved	7439-98-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		nickel, dissolved	7440-02-0	E421	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	----
		phosphorus, dissolved	7723-14-0	E421	8.91 mg/L	10 mg/L	89.1	70.0	130	----
		potassium, dissolved	7440-09-7	E421	3.70 mg/L	4 mg/L	92.5	70.0	130	----
		rubidium, dissolved	7440-17-7	E421	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		selenium, dissolved	7782-49-2	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		silicon, dissolved	7440-21-3	E421	9.15 mg/L	10 mg/L	91.5	70.0	130	----
		silver, dissolved	7440-22-4	E421	0.00373 mg/L	0.004 mg/L	93.2	70.0	130	----
		sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		tellurium, dissolved	13494-80-9	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		thallium, dissolved	7440-28-0	E421	0.00366 mg/L	0.004 mg/L	91.6	70.0	130	----
		thorium, dissolved	7440-29-1	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		tin, dissolved	7440-31-5	E421	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		titanium, dissolved	7440-32-6	E421	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		tungsten, dissolved	7440-33-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		uranium, dissolved	7440-61-1	E421	0.00385 mg/L	0.004 mg/L	96.2	70.0	130	----
		vanadium, dissolved	7440-62-2	E421	0.0977 mg/L	0.1 mg/L	97.7	70.0	130	----
		zinc, dissolved	7440-66-6	E421	0.386 mg/L	0.4 mg/L	96.6	70.0	130	----
		zirconium, dissolved	7440-67-7	E421	0.0396 mg/L	0.04 mg/L	98.9	70.0	130	----
Dissolved Metals (QCLot: 625744)										
WR2200854-002	E1	mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 625745)										
WR2200854-023	R11	mercury, dissolved	7439-97-6	E509	0.0000942 mg/L	0.0001 mg/L	94.2	70.0	130	----
Speciated Metals (QCLot: 638771)										
VA22C1286-002	Anonymous	chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.252 mg/L	0.25 mg/L	101	85.0	115	----
Speciated Metals (QCLot: 638773)										
VA22C1324-002	Anonymous	chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.250 mg/L	0.25 mg/L	100	70.0	130	----

30-Aug-2022

Heather McKenzie
ALS Whitehorse
12-151 Industrial Rd
Whitehorse, YT, Y1A2V3

Re: **WR2200854** Work Order: **22080682**

Dear Heather,

ALS Environmental received 28 samples on 17-Aug-2022 10:26 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 17.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Shawn Smythe

Electronically approved by: Shawn Smythe

Shawn Smythe
Project Manager

Report of Laboratory Analysis

ALS Environmental

Date: 30-Aug-22

Client: ALS Whitehorse
Project: WR2200854
Work Order: **22080682**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
22080682-01	CC-201	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-02	E1	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-03	R7	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-04	SL	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-05	GWCC-5	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-06	GWCC-2	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-07	GWCC-3	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-08	GWCC-1	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-09	GWCC-4	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-10	E3	Wastewater		8/9/2022 03:00	8/17/2022 10:26	☐
22080682-11	E2	Wastewater		8/9/2022 03:00	8/17/2022 10:26	☐
22080682-12	R4	Water		8/9/2022 03:00	8/17/2022 10:26	☐
22080682-13	E4	Water		8/9/2022 03:00	8/17/2022 10:26	☐
22080682-14	R1	Wastewater		8/10/2022 03:00	8/17/2022 10:26	☐
22080682-15	E1(H)	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-16	CC-202	Water		8/11/2022 03:00	8/17/2022 10:26	☐
22080682-17	R3	Wastewater		8/9/2022 03:00	8/17/2022 10:26	☐
22080682-18	R8	Water		8/10/2022 03:00	8/17/2022 10:26	☐
22080682-19	R2	Water		8/10/2022 03:00	8/17/2022 10:26	☐
22080682-20	Field Blank	Water		8/10/2022 03:00	8/17/2022 10:26	☐
22080682-21	R9	Water		8/10/2022 03:00	8/17/2022 10:26	☐
22080682-22	R11	Water		8/9/2022 03:00	8/17/2022 10:26	☐
22080682-23	E7	Water		8/9/2022 03:00	8/17/2022 10:26	☐
22080682-24	R6	Water		8/12/2022 03:00	8/17/2022 10:26	☐
22080682-25	E8	Water		8/9/2022 03:00	8/17/2022 10:26	☐
22080682-26	HL3-M	Water		8/12/2022 03:00	8/17/2022 10:26	☐
22080682-27	HL3-T	Water		8/12/2022 03:00	8/17/2022 10:26	☐
22080682-28	HL3-B	Water		8/10/2022 03:00	8/17/2022 10:26	☐

ALS Environmental

Date: 30-Aug-22

Client: ALS Whitehorse
Project: WR2200854
Work Order: 22080682

Case Narrative

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *30-Aug-22*

Client: ALS Whitehorse
Project: WR2200854

Work Order: 22080682

Lab ID: 22080682-01A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: CC-201
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**6.5**	H	**4.0**	**mg/L**	1	8/26/2022

Lab ID: 22080682-02A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: E1
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/26/2022

Lab ID: 22080682-03A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: R7
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**22**	H	**4.0**	**mg/L**	1	8/26/2022

Lab ID: 22080682-04A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: SL
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**4.6**	H	**4.0**	**mg/L**	1	8/26/2022

Lab ID: 22080682-05A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: GWCC-5
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/26/2022

Note:

ALS Environmental

Date: *30-Aug-22*

Client: ALS Whitehorse
Project: WR2200854

Work Order: 22080682

Lab ID: 22080682-06A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: GWCC-2
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**5.3**	H	**4.0**	**mg/L**	1	8/26/2022

Lab ID: 22080682-07A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: GWCC-3
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**4.7**	H	**4.0**	**mg/L**	1	8/26/2022

Lab ID: 22080682-08A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: GWCC-1
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**11**	H	**4.0**	**mg/L**	1	8/26/2022

Lab ID: 22080682-09A
Collection Date: 8/11/2022 3:00:00 AM
Client Sample ID: GWCC-4
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-10A
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: E3
Matrix: WASTEWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Note:

ALS Environmental

Date: *30-Aug-22*

Client: ALS Whitehorse
Project: WR2200854

Work Order: 22080682

Lab ID: 22080682-10B
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: E3
Matrix: WASTEWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**4.1**	H	**4.0**	**mg/L**	1	8/29/2022

Lab ID: 22080682-11A
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: E2
Matrix: WASTEWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Lab ID: 22080682-11B
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: E2
Matrix: WASTEWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-12A
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: R4
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-13A
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: E4
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Note:

ALS Environmental

Date: *30-Aug-22*

Client: ALS Whitehorse
Project: WR2200854

Work Order: 22080682

Lab ID: 22080682-14A
Client Sample ID: R1
Collection Date: 8/10/2022 3:00:00 AM
Matrix: WASTEWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Lab ID: 22080682-14B
Client Sample ID: R1
Collection Date: 8/10/2022 3:00:00 AM
Matrix: WASTEWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**4.2**	H	**4.0**	**mg/L**	1	8/29/2022

Lab ID: 22080682-15A
Client Sample ID: E1(H)
Collection Date: 8/11/2022 3:00:00 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**4.1**	H	**4.0**	**mg/L**	1	8/29/2022

Lab ID: 22080682-16A
Client Sample ID: CC-202
Collection Date: 8/11/2022 3:00:00 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**6.8**	H	**4.0**	**mg/L**	1	8/29/2022

Lab ID: 22080682-17A
Client Sample ID: R3
Collection Date: 8/9/2022 3:00:00 AM
Matrix: WASTEWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Note:

ALS Environmental

Date: *30-Aug-22*

Client: ALS Whitehorse
Project: WR2200854

Work Order: 22080682

Lab ID: 22080682-17B
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: R3
Matrix: WASTEWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-18A
Collection Date: 8/10/2022 3:00:00 AM
Client Sample ID: R8
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**41**	H	**4.0**	**mg/L**	1	8/29/2022

Lab ID: 22080682-19A
Collection Date: 8/10/2022 3:00:00 AM
Client Sample ID: R2
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-20A
Collection Date: 8/10/2022 3:00:00 AM
Client Sample ID: Field Blank
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-21A
Collection Date: 8/10/2022 3:00:00 AM
Client Sample ID: R9
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Note:

ALS Environmental

Date: *30-Aug-22*

Client: ALS Whitehorse
Project: WR2200854

Work Order: 22080682

Lab ID: 22080682-22A
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: R11
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-23A
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: E7
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-24A
Collection Date: 8/12/2022 3:00:00 AM
Client Sample ID: R6
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-25A
Collection Date: 8/9/2022 3:00:00 AM
Client Sample ID: E8
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-26A
Collection Date: 8/12/2022 3:00:00 AM
Client Sample ID: HL3-M
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**8.8**	H	**4.0**	**mg/L**	1	8/29/2022

Note:

ALS Environmental

Date: *30-Aug-22*

Client: ALS Whitehorse
Project: WR2200854

Work Order: 22080682

Lab ID: 22080682-27A
Client Sample ID: HL3-T

Collection Date: 8/12/2022 3:00:00 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	ND	H	4.0	mg/L	1	8/29/2022

Lab ID: 22080682-28A
Client Sample ID: HL3-B

Collection Date: 8/10/2022 3:00:00 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL SUSPENDED SOLIDS			**E160.2**			Analyst: **TG**
Total suspended solids	**65**	H	**4.0**	**mg/L**	1	8/29/2022

Note:

QC BATCH REPORT

Batch ID: **R207550** Instrument ID **BAL1** Method: **E160.2**

MBLK Sample ID: **MBLK-R207550** Units: **mg/L** Analysis Date: **8/26/2022**

Client ID: Run ID: **BAL1_220826A** SeqNo: **2829377** Prep Date: **8/25/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	ND	4.0								

MBLK Sample ID: **MBLK-R207550** Units: **mg/L** Analysis Date: **8/26/2022**

Client ID: Run ID: **BAL1_220826A** SeqNo: **2829413** Prep Date: **8/25/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	ND	4.0								

LCS Sample ID: **LCS-R207550** Units: **mg/L** Analysis Date: **8/26/2022**

Client ID: Run ID: **BAL1_220826A** SeqNo: **2829376** Prep Date: **8/25/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	813.7	4.0	1000	0	81.4	70-130	0			

LCS Sample ID: **LCS-R207550** Units: **mg/L** Analysis Date: **8/26/2022**

Client ID: Run ID: **BAL1_220826A** SeqNo: **2829411** Prep Date: **8/25/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	813.7	4.0	1000	0	81.4	80.5-111	0			

DUP Sample ID: **22080837-01C DUP** Units: **mg/L** Analysis Date: **8/26/2022**

Client ID: Run ID: **BAL1_220826A** SeqNo: **2829374** Prep Date: **8/25/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	81.25	4.0	0	0	0		75.64	7.15	20	

DUP Sample ID: **22080577-01A DUP** Units: **mg/L** Analysis Date: **8/26/2022**

Client ID: Run ID: **BAL1_220826A** SeqNo: **2829391** Prep Date: **8/25/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	11.22	4.0	0	0	0		9.85	13	20	

The following samples were analyzed in this batch:

22080682-01A	22080682-02A	22080682-03A
22080682-04A	22080682-05A	22080682-06A
22080682-07A	22080682-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Whitehorse
Work Order: 22080682
Project: WR2200854

QC BATCH REPORT

Batch ID: **R207598** Instrument ID **BAL1** Method: **E160.2**

MBLK Sample ID: **MBLK-R207598** Units: **mg/L** Analysis Date: **8/29/2022**
Client ID: Run ID: **BAL1_220829A** SeqNo: **2831095** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	ND	4.0								

LCS Sample ID: **LCS-R207598** Units: **mg/L** Analysis Date: **8/29/2022**
Client ID: Run ID: **BAL1_220829A** SeqNo: **2831094** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	1109	4.0	1000	0	111	70-130	0			

DUP Sample ID: **22080682-09A DUP** Units: **mg/L** Analysis Date: **8/29/2022**
Client ID: **GWCC-4** Run ID: **BAL1_220829A** SeqNo: **2831077** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	3.7	4.0	0	0	0		1.57	0	20	JH

The following samples were analyzed in this batch:

22080682-09A	22080682-10B	22080682-11B
22080682-12A	22080682-13A	22080682-14B
22080682-15A	22080682-16A	22080682-17B
22080682-18A	22080682-19A	22080682-20A
22080682-21A	22080682-22A	22080682-23A
22080682-24A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Whitehorse
Work Order: 22080682
Project: WR2200854

QC BATCH REPORT

Batch ID: **R207631** Instrument ID **BAL1** Method: **E160.2**

MBLK Sample ID: **MBLK-R207631** Units: **mg/L** Analysis Date: **8/29/2022**
Client ID: Run ID: **BAL1_220829C** SeqNo: **2831928** Prep Date: **8/29/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	ND	4.0								

MBLK Sample ID: **MBLK-R207631** Units: **mg/L** Analysis Date: **8/29/2022**
Client ID: Run ID: **BAL1_220829C** SeqNo: **2831941** Prep Date: **8/29/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	ND	4.0								

LCS Sample ID: **LCS-R207631** Units: **mg/L** Analysis Date: **8/29/2022**
Client ID: Run ID: **BAL1_220829C** SeqNo: **2831927** Prep Date: **8/29/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	442.6	4.0	1000	0	44.3	70-130	0			S

LCS Sample ID: **LCS-R207631** Units: **mg/L** Analysis Date: **8/29/2022**
Client ID: Run ID: **BAL1_220829C** SeqNo: **2831940** Prep Date: **8/29/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	442.6	4.0	1000	0	44.3	80.5-111	0			S

DUP Sample ID: **22080682-25A DUP** Units: **mg/L** Analysis Date: **8/29/2022**
Client ID: **E8** Run ID: **BAL1_220829C** SeqNo: **2831917** Prep Date: **8/29/2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended solids	1.4	4.0	0	0	0		0	0	20	J

The following samples were analyzed in this batch: 22080682-25A 22080682-26A 22080682-27A 22080682-28A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 30-Aug-22

Client: ALS Whitehorse
Project: WR2200854
WorkOrder: **22080682**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
%	
mg/L	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-WHITEHORSE** Date/Time Received: **17-Aug-22 10:26**

Work Order: **22080682** Received by: **MB**

Checklist completed by Madison Bufler 17-Aug-22 Reviewed by: Shawn Smythe 18-Aug-22

eSignature / Date / eSignature / Date

Matrices: WATER

Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☐	No ☑	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	9.8	119059	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	8/17/2022 12:19		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Contact: Heather McKenzie
Company: ALS Whitehorse
Address: 12-151 Industrial Rd,
Whitehorse, YT, Y1A2V3

Project: WR2200854
PO Number: WR2200854
ALS Work Order: 22080682

NARRATIVE: Analysis performed on FEI Tecnai TEM equipped with EDAX Octane T Plus Silicon Drift Detector and Z2 Analyzer. Fiber morphology, selected area electron diffraction (SAED), and energy dispersive x-ray analysis (EDXA) used to determine species. All sample collection is performed outside of ALS Cincinnati is therefore the sole responsibility of the client. Contact your local authority for information on method selection, sampling instructions, and reporting requirements prior to submission.

NOTICE: All US EPA Public Water System (PWS) drinking water compliance samples must be filtered by the laboratory within 48 hours of sampling. ALS cannot report analytical results directly to the EPA unless all of the information required by the state EPA agency is provided via the COC at the time of receipt. Report revisions resulting from failure to provide this information via the COC will result in additional administrative fees. ALS is not responsible for late or inaccurate EPA reporting as a result of client sample collection errors or sample information omissions. Water samples originating from outside the United States do not fall under the US EPA drinking water guidelines and are therefore not required to meet the 48 hour hold and are not reported to any agency.

METHOD CODES: "EPA 100.2" refers only to drinking (potable) PWS samples for EPA compliance which are analyzed at >10,000x for asbestos fibers >10µm long. "ENV 005" refers to all other water samples (non-potable, non-compliance, or non-US) analyzed at >10,000x for asbestos fibers >10µm long. "EPA 100.1" refers to water samples analyzed by a modified version of the method for asbestos fibers of any size. All excess water is disposed immediately following adequate filtration. All filtered samples are disposed after 60 day archive. All TEM grids analyzed are archived for a minimum of 3 years. Results apply only to portions of samples analyzed.

SUMMARY: An AS of <0.2 MFL is desired for drinking (potable) waters, and an AS of <7 MFL is generally acceptable for non-potable waters. Whenever possible, a sufficient volume is analyzed to yield the desired AS based on the detection of 1 confirmed asbestos fiber in the total area analyzed. However, waters containing excessive solids may require filtration of volumes too low to achieve the desired AS. In any case, a minimum of 4 and maximum of 10 grid openings are analyzed regardless of the AS reached or the asbestos concentration detected. Representative EDXA spectra and/or photomicrographs are available upon request for an additional fee.
NA=Not Applicable, AS=Analytical Sensitivity, MFL=Millions of Fibers per Liter, MRL=Method Reporting Limit

ALS Cincinnati accredited by NY ELAP for Asbestos in Water by EPA 100.2
OH State Lab No.: 4077, OH Analyst Nos.: 2268 (P. Hizar), 3431 (A. Sohn)
PA State Lab No.: 68-01320, PA Certification No.: 003
WA State Lab No.: 211
NY State Lab No.: 11371

Pamela M. Hizar

Pamela M. Hizar
ALS Microscopy Technical Manager

IDENTIFICATION				
Client ID:	E3	E2	R1	R3
ALS ID:	22080682-10A	22080682-11A	22080682-14A	22080682-17A
Method:	ENV 005	ENV 005	ENV 005	ENV 005
MRL:	<7MFL	<7MFL	<7MFL	<7MFL
Collection:	8/9/22 3:00 AM	8/9/22 3:00 AM	8/10/22 3:00 AM	8/9/22 3:00 AM
Filtration:	8/17/22 4:00 PM	8/17/22 4:00 PM	8/17/22 4:00 PM	8/17/22 4:00 PM
Elapsed:	NA	NA	NA	NA
Sample Comments:	*HIGH SOLIDS CONTENT*	*HIGH SOLIDS CONTENT*	*HIGH SOLIDS CONTENT*	*HIGH SOLIDS CONTENT*
ANALYSIS				
Analyst:	Pamela Hizar	Pamela Hizar	Pamela Hizar	Pamela Hizar
Completed:	8/22/22 12:15 PM	8/22/22 12:45 PM	8/22/22 1:15 PM	8/22/22 1:45 PM
Volume (L):	0.05	0.05	0.05	0.05
Avg. Opening Area (mm^2):	0.0102	0.0102	0.0102	0.0102
No. Openings Analyzed:	10	10	10	10
AS (MFL):	0.21	0.21	0.21	0.21
COUNT				
Chrysotile:	0	0	0	0
Amosite:	0	0	0	0
Crocidolite:	0	0	0	0
Actinolite:	0	0	0	0
Tremolite:	0	0	0	0
Anthophyllite:	0	0	0	0
Total Asbestos:	0	0	0	0
CONCENTRATION (MFL)				
Chrysotile:	<AS	<AS	<AS	<AS
Amosite:	<AS	<AS	<AS	<AS
Crocidolite:	<AS	<AS	<AS	<AS
Actinolite:	<AS	<AS	<AS	<AS
Tremolite:	<AS	<AS	<AS	<AS
Anthophyllite:	<AS	<AS	<AS	<AS
Total Asbestos:	**<AS**	**<AS**	**<AS**	**<AS**
Analysis Comments:	*NONE*	*NONE*	*NONE*	*NONE*

4388 Glendale-Milford Road Cincinnati, Ohio 45242
Phone (513) 733-5336 Fax (513) 733-5347 www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Environmental Division
Whitehorse
Work Order Reference
WR2200854

Telephone : +1 867 668 6689

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	ldoetzel@edynamics.com
Email 2	shawna.warshawski@gov.yk.ca
Email 3	aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	sjenner@edynamics.com
Email 2	aaltherr@edynamics.com

Project Information

ALS Account # / Quote #:	Q77741
Job #:	20Y0150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie **Sampler:**

Select Service Level Below - Contact your AM

Regular [R] ☑ Standard TAT if received by

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Busin | Same Da | (Laborat

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service leve

Analys

Indicate Filtered (F), Preserved (P) or Filt

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON	SUSPECTED HAZARD (see Special Instructions)
						P		F/P		P		F									
1	CC-201	11-Aug-22	13:40	Water	10	R	R	R	R	R	R	R	R								
2	E1	11-Aug-22	13:30	Water	10	R	R	R	R	R	R	R	R								
3	R7	11-Aug-22	11:25	Water	10	R	R	R	R	R	R	R	R								
4	SL	11-Aug-22	12:30	Water	10	R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☐ NO

Are samples for human consumption/ use?
☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

TTL Metals not preserved

Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS REC

Frozen ☐ SIF Observations
Ice Packs ☑ Ice Cubes ☐ Custody seal intact
Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C

7/8/12/8/5/8/9

6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RE	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:
Scott M	12-Aug-22			AUG 12/22	11:50		

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 2 of 7

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Quality Control (QC) Report with Report ☑ YES ☐ NO

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	ldoetzel@edynamics.com
Email 2	shawna.warshawski@gov.yk.ca
Email 3	aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	sjenner@edynamics.com
Email 2	aaltherr@edynamics.com

Project Information

ALS Account # / Quote #:	Q77741
Job #:	20Y0150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie **Sampler:**

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200%] (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
							P		F/P		P		F	P	F/P			P			
5	GWCC - 5	11 - Aug -22	15:20	Water	10	R	R	R	R	R	R	R	R								
6	GWCC - 2	11 - Aug -22	14:30	Water	10	R	R	R	R	R	R	R	R								
7	GWCC - 3	11 - Aug -22	14:10	Water	10	R	R	R	R	R	R	R	R								
8	GWCC - 1	11 - Aug -22	14:35	Water	10	R	R	R	R	R	R	R	R								
9	GWCC - 4	11 - Aug -22	14:05	Water	10	R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
JM	12-Aug	

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 3 of 7

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	ldoetzel@edynamics.com
Email 2	shawna.warshawski@gov.yk.ca
Email 3	aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	sjenner@edynamics.com
Email 2	aaltherr@edynamics.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	Q77741
Job #:	20Y0150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie **Sampler:**

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
						P		F/P		P		F	P	F/P				P			
10	E3	9 - S -22	13:45	Water	11	R	R	R	R	R	R	R	R			R					
11	E2	9 - 8 -22	13:30	Water	11	R	R	R	R	R	R	R	R			R					
12	R4	9 - 8 -22	12:00	Water	16	R	R	R	R	R	R	R	R								
13	E4	9 - 8 -22	11:30	Water	10	R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: JM	Date: 12-Aug	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Quality Control (QC) Report with Report ☑ YES ☐ NO

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: ldoetzel@edynamics.com

Email 2: shawna.warshawski@gov.yk.ca

Email 3: aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: sjenner@edynamics.com

Email 2: aaltherr@edynamics.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	Q77741
Job #:	20Y0150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie **Sampler:**

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
						P		F/P		P		F	P	F/P			P				
14	R1	10-Aug-22	15:55	Water	11	R	R	R	R	R	R	R	R			R					
15	E1(H)	11-Aug-22	09:00	Water	10	R	R	R	R	R	R	R	R								
16	CC-202	11-Aug-22	09:10	Water	10	R	R	R	R	R	R	R	R								
17	R3	9-Aug-22	18:15	Water	11	R	R	R	R	R	R	R	R			R					
		-	-22		Water		R	R	R	R	R	R	R	R								
		-	-22		Water		R	R	R	R	R	R	R	R								
		-	-22		Water		R	R	R	R	R	R	R	R								
		-	-22		Water		R	R	R	R	R	R	R	R								
		-	-22		Water		R	R	R	R	R	R	R	R								
		-	-22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	-	-22		Water		R	R	R	R	R	R	R	R								
		-	-22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

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SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
JM	12-Aug	

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

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Chain of Custody (COC) / Analytical Request Form

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COC Number: 17 -

Page 5 of 7

Report To	Contact and company name below will appear on the final report
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Contact:	Annina Altherr
Phone:	778-350-3053
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City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax ldoetzel@edynamics.com
Email 2 shawna.warshawski@gov.yk.ca
Email 3 aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax sjenner@edynamics.com
Email 2 aaltherr@edynamics.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

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EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

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Job #:	20Y0150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): | **ALS Contact:** H. Mackenzie | **Sampler:**

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH (P)	Anions by Ion Chromatography (P)	Total suspended solids - Cincinnati OH (F/P)	Dissolved organic carbon	Total Phosphorus (P)	Ammonia	Total metals and mercury (F)	Dissolved metals and mercury (P)	Chromium Speciation (3/6) - Total (F/P)	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S (P)		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
18	R8	10 - 08 -22	10:35	Water	10	R	R	R	R	R	R	R	R								
19	R2	10 - 08 -22	12:00	Water	10	R	R	R	R	R	R	R	R								
20	Fieldblank	10 - 08 -22	14:36	Water	10	R	R	R	R	R	R	R	R								
21	R9	10 - 08 -22	14:10	Water	10	R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: JM	Date: 12-AUG	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	ldoetzel@edynamics.com
Email 2	shawna.warshawski@gov.yk.ca
Email 3	aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	sjenner@edynamics.com
Email 2	aaltherr@edynamics.com

Project Information

ALS Account # / Quote #:	Q77741
Job #:	20Y0150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie **Sampler:**

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200%] (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
						P		F/P		P		F	P	F/P			P				
22	TRAVEL BLANK	/ -22	/	Water	#6	R	R	R	R	R	R	R	R								
23	R11	9 -08 -22	16:15	Water	10	R	R	R	R	R	R	R	R								
24	E7	9 -08 -22	09:45	Water	10	R	R	R	R	R	R	R	R								
25	R6	9 -08 -22	10:15	Water	10	R	R	R	R	R	R	R	R								
26	E8	9 -08 -22	08:40	Water	10	R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
JM	12-AUG	

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

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www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 7 of 7

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	ldoetzel@edynamics.com
Email 2	shawna.warshawski@gov.yk.ca
Email 3	aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	sjenner@edynamics.com
Email 2	aaltherr@edynamics.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	Q77741
Job #:	20YO150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie **Sampler:**

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
						P		F/P		P		F	P	F/P			P			
27	HL3-M	10-08-22	18:05	Water	11	R	R	R	R	R	R	R	R				R	R		
28	HL3-T	10-08-22	17:55	Water	11	R	R	R	R	R	R	R	R				R	R		
29	HL3-B	10-08-22	18:15	Water	11	R	R	R	R	R	R	R	R				R	R		
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
	Provide lab files in EDI format AND in AAM format	-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

all TTL Metals / Dissolved Metals > Not preserved Throughout entire Sampling event

Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
JM	12-Aug	

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 7

Environmental Division Whitehorse
Work Order Reference
WR2200854

Telephone : +1 867 668 6689

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: ldoetzel@edynamics.com
Email 2: shawna.warshawski@gov.yk.ca
Email 3: aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: sjenner@edynamics.com
Email 2: aaltherr@edynamics.com

Select Service Level Below - Contact your AM

Regular [R] ☑ Standard TAT if received by

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Busin | Same Di | (Laborat

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service leve

Project Information

ALS Account # / Quote #:	Q77741
Job #:	20Y0150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie

Sampler:

Analys

Indicate Filtered (F), Preserved (P) or Fil

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON	SUSPECTED HAZARD (see Special Instructions)
							P		F/P		P		F								
1	CC-201	11-Aug-22	13:40	Water	10	R	R	R	R	R	R	R	R								
2	E1	10-Aug-22	13:30	Water	10	R	R	R	R	R	R	R	R								
3	R7	11-Aug-22	11:25	Water	10	R	R	R	R	R	R	R	R								
4	SL	11-Aug-22	12:30	Water	10	R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☐ NO

Are samples for human consumption/ use?
☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

TAL Metals not received

Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS REC

Frozen ☐ SIF Observations
Ice Packs ☑ Ice Cubes ☐ Custody seal intact
Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C

7 | 8 | 12 | 8 | 5 | 8 | 9

6

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Scott M	12-Aug-22	

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
[illegible]	AUG 12/22	11:50

FINAL SHIPMENT RE

Received by:	Date:
JH	AUG 14 2022

11 15am

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Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Page 2 of 7

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: ldoetzel@edynamics.com
Email 2: shawna.warshawski@gov.yk.ca
Email 3: aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: sjenner@edynamics.com
Email 2: aaltherr@edynamics.com

Project Information

ALS Account # / Quote #: Q77741
Job #: 20Y0150 Clinton Creek
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

ALS Lab Work Order # (lab use only):
ALS Contact: H. Mackenzie Sampler:

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

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Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
						P		F/P		P		F	P	F/P			P				
5	GWCC - 5	11 - Aug -22	15:20	Water	10	R	R	R	R	R	R	R	R								
6	GWCC - 2	11 - Aug -22	14:36	Water	10	R	R	R	R	R	R	R	R								
7	GWCC - 3	11 - Aug -22	14:10	Water	10	R	R	R	R	R	R	R	R								
8	GWCC - 1	11 - Aug -22	14:35	Water	10	R	R	R	R	R	R	R	R								
9	GWCC - 4	11 - Aug -22	14:05	Water	10	R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO
Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

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SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: JM	Date: 12-Aug	Time:	Received by:	Date:	Time:	Received by:	Date: AUG 14 2022	Time: 11 Kam

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax ldoetzel@edynamics.com
Email 2 shawna.warshawski@gov.yk.ca
Email 3 aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax sjenner@edynamics.com
Email 2 aaltherr@edynamics.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #: Q77741
Job #: 20Y0150 Clinton Creek
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
						P			F/P		P		F	P	F/P			P			
10	E3	9 - 8 -22	13:45	Water	11	R	R	R	R	R	R	R	R			R					
11	E2	9 - 8 -22	13:30	Water	11	R	R	R	R	R	R	R	R			R					
12	R4	9 - 8 -22	12:00	Water	10	R	R	R	R	R	R	R	R								
13	E4	9 - 8 -22	11:30	Water	10	R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: JM	Date: 12-Aug	Time:	Received by:	Date:	Time:	Received by: JA	Date: AUG 14 2022	Time: 11:15am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Page 4 of 7

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	idoetzel@edynamics.com
Email 2	shawna.warshawski@gov.yk.ca
Email 3	aaltherr@edynamics.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)			
Regular [R]	☑ Standard TAT if received by 3 pm - business days - no surcharges apply		
PRIORITY (Business Days)	4 day [P4-20%] ☐	EMERGENCY	1 Business day [E - 100%] ☐
	3 day [P3-25%] ☐		Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
	2 day [P2-50%] ☐		
Date and Time Required for all E&P TATs:			dd-mmm-yy hh:mm
For tests that can not be performed according to the service level selected, you will be contacted.			

Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	sjenner@edynamics.com
Email 2	aaltherr@edynamics.com

Project Information	
ALS Account # / Quote #:	Q77741
Job #:	20Y0150 Clinton Creek
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: H. Mackenzie

Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
							P		F/P		P		F	P	F/P			P		
14	R1	10-Aug-22	15:55	Water	11	R	R	R	R	R	R	R	R			R				
15	E1(H)	11-Aug-22	09:00	Water	10	R	R	R	R	R	R	R	R							
16	CC-202	11-Aug-22	09:10	Water	10	R	R	R	R	R	R	R	R							
17	R3	9-Aug-22	18:15	Water	11	R	R	R	R	R	R	R	R			R				
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
	Provide lab files in EDI format AND in AAM format	-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☐ NO	
Are samples for human consumption/ use? ☐ YES ☐ NO	Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐		SIF Observations	Yes ☐	No ☐	
Ice Packs ☐	Ice Cubes ☐	Custody seal intact	Yes ☐	No ☐	
Cooling Initiated ☐					

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: JM	Date: 12-Aug	Time:	Received by:	Date:	Time:	Received by: UA	Date: AUG 14 2022	Time: 11:15am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Page 5 of 7

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
Street:	2195 2nd Avenue
City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	ldoetzel@edynamics.com
Email 2	shawna.warshawski@gov.yk.ca
Email 3	aaltherr@edynamics.com
Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	sjenner@edynamics.com
Email 2	aaltherr@edynamics.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)	
Regular [R]	☑ Standard TAT if received by 3 pm - business days - no surcharges apply
PRIORITY (Business Days) 4 day [P4-20%]	☐
3 day [P3-25%]	☐
2 day [P2-50%]	☐
EMERGENCY 1 Business day [E - 100%]	☐
Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]	☐
Date and Time Required for all E&P TATs:	dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	Q77741	AFE/Cost Center:	PO#
Job #:	20Y0150 Clinton Creek	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): **ALS Contact:** H. Mackenzie **Sampler:**

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
						P		F/P		P		F	P	F/P			P				
18	R8	10 - 08 -22	10:35	Water	10	R	R	R	R	R	R	R	R								
19	R2	10 - 08 -22	12:00	Water	10	R	R	R	R	R	R	R	R								
20	Fieldblank	10 - 08 -22	14:30	Water	10	R	R	R	R	R	R	R	R								
21	R9	10 - 08 -22	14:10	Water	10	R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								
	Provide lab files in EDI format AND in AAM format	- -22		Water		R	R	R	R	R	R	R	R								
		- -22		Water		R	R	R	R	R	R	R	R								

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☐ NO	
Are samples for human consumption/ use? ☐ YES ☐ NO	Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs	☐ Ice Cubes ☐	Custody seal intact	Yes ☐	No	☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: JM	Date: 12-AUG	Time:	Received by:	Date:	Time:	Received by: JA	Date: AUG 14 2022	Time: 1115am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

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COC Number: 17 -

Page 6 of 7

Report To	Contact and company name below will appear on the final report
Company:	EDI Environmental Dynamics Inc.
Contact:	Annina Altherr
Phone:	778-350-3053
	Company address below will appear on the final report
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City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	ldoetzel@edynamics.com
Email 2	shawna.warshawski@gov.yk.ca
Email 3	aaltherr@edynamics.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	sjenner@edynamics.com
Email 2	aaltherr@edynamics.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	Q77741	AFE/Cost Center:	PO#
Job #:	20Y0150 Clinton Creek	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): | **ALS Contact:** H. Mackenzie | **Sampler:**

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

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PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

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Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Conductivity, pH	Anions by Ion Chromatography	Total suspended solids - Cincinnati OH	Dissolved organic carbon	Total Phosphorus	Ammonia	Total metals and mercury	Dissolved metals and mercury	Chromium Speciation (3/6) - Total	Chromium Speciation (3/6) - Dissolved	Asbestos-TEM	Biochemical oxygen demand	Total Sulphide as S, sulphide as H2S		SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
						P		F/P		P		F	P	F/P				P			
22	TRAVEL BLANK	-22		Water	6	R	R	R	R	R	R	R	R								
23	R11	9-08-22	16:15	Water	10	R	R	R	R	R	R	R	R								
24	E7	9-08-22	09:45	Water	10	R	R	R	R	R	R	R	R								
25	R6	9-08-22	10:15	Water	10	R	R	R	R	R	R	R	R								
26	E8	9-08-22	08:40	Water	10	R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
		-22		Water		R	R	R	R	R	R	R	R								
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Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

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Ice Packs ☐	Ice Cubes ☐	Custody seal intact	Yes ☐	No ☐	
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Page 7 of 7

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City/Province:	Whitehorse, Yukon
Postal Code:	Y1A 3T8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	EDI Environmental Dynamics Inc.
Contact:	Shannon Jenner

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: ldoetzel@edynamics.com
Email 2: shawna.warshawski@gov.yk.ca
Email 3: aaltherr@edynamics.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: sjenner@edynamics.com
Email 2: aaltherr@edynamics.com

Project Information

ALS Account # / Quote #: Q77741
Job #: 20Y0150 Clinton Creek
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

ALS Lab Work Order # (lab use only):
ALS Contact: H. Mackenzie Sampler:

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

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						P		F/P		P		F	P	F/P			P			
27	HL3-M	10-08-22	18:05	Water	11	R	R	R	R	R	R	R	R				R	R		
28	HL3-T	10-08-22	17:55	Water	11	R	R	R	R	R	R	R	R				R	R		
29	HL3-B	10-08-22	18:15	Water	11	R	R	R	R	R	R	R	R				R	R		
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							
	Provide lab files in EDI format AND in AAM format	-22		Water		R	R	R	R	R	R	R	R							
		-22		Water		R	R	R	R	R	R	R	R							

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO
Are samples for human consumption/ use? ☐ YES ☐ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

all TAL Metals, Dissolved Metals) Not Preserved Throughout entire Sampling event
Hold samples for Chromium Speciation (3/6) pending regular metals analysis results: where T- or D-Cr concentration > 0.001 mg/L, test for speciated Cr (Cr3+ and Cr6+).

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐
Ice Packs ☐ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: JM	Date: 12-AUG	Time:	Received by:	Date:	Time:	Received by: JH	Date: AUG 14 2022	Time: 11:15am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form.**