



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		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE 23-WT-001A	E100	06-Sep-2023	07-Sep-2023	28 days	1 days	✓	07-Sep-2023	28 days	1 days	✓
Physical Tests : Conductivity in Water										
HDPE 23-WT-002A	E100	06-Sep-2023	07-Sep-2023	28 days	1 days	✓	07-Sep-2023	28 days	1 days	✓
Physical Tests : Conductivity in Water										
HDPE 23-WT-003A	E100	06-Sep-2023	07-Sep-2023	28 days	1 days	✓	07-Sep-2023	28 days	1 days	✓
Physical Tests : Conductivity in Water										
HDPE 23-WT-004A	E100	06-Sep-2023	07-Sep-2023	28 days	1 days	✓	07-Sep-2023	28 days	1 days	✓
Physical Tests : Conductivity in Water										
HDPE 23-WT-005A	E100	06-Sep-2023	07-Sep-2023	28 days	1 days	✓	07-Sep-2023	28 days	1 days	✓
Physical Tests : pH by Meter										
HDPE 23-WT-001A	E108	06-Sep-2023	07-Sep-2023	0.25 hrs	24 hrs	✗ EHTR-FM	07-Sep-2023	0.25 hrs	24 hrs	✗ EHTR-FM
Physical Tests : pH by Meter										
HDPE 23-WT-002A	E108	06-Sep-2023	07-Sep-2023	0.25 hrs	24 hrs	✗ EHTR-FM	07-Sep-2023	0.25 hrs	24 hrs	✗ EHTR-FM
Physical Tests : pH by Meter										
HDPE 23-WT-003A	E108	06-Sep-2023	07-Sep-2023	0.25 hrs	24 hrs	✗ EHTR-FM	07-Sep-2023	0.25 hrs	24 hrs	✗ EHTR-FM
Physical Tests : pH by Meter										
HDPE 23-WT-004A	E108	06-Sep-2023	07-Sep-2023	0.25 hrs	24 hrs	✗ EHTR-FM	07-Sep-2023	0.25 hrs	24 hrs	✗ EHTR-FM



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Analyte Group	Method	Sampling Date	Extraction / Preparation				Analysis			
Container / Client Sample ID(s)			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter										
HDPE 23-WT-005A	E108	06-Sep-2023	07-Sep-2023	0.25 hrs	24 hrs	✖ EHTR-FM	07-Sep-2023	0.25 hrs	24 hrs	✖ EHTR-FM
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] 23-WT-001A	E160-L	06-Sep-2023	----	----	----		08-Sep-2023	7 days	1 days	✖ EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] 23-WT-002A	E160-L	06-Sep-2023	----	----	----		08-Sep-2023	7 days	1 days	✖ EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] 23-WT-003A	E160-L	06-Sep-2023	----	----	----		08-Sep-2023	7 days	1 days	✖ EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] 23-WT-004A	E160-L	06-Sep-2023	----	----	----		08-Sep-2023	7 days	1 days	✖ EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] 23-WT-005A	E160-L	06-Sep-2023	----	----	----		08-Sep-2023	7 days	1 days	✖ EHT
Total Metals : Total Mercury in Water by CVAAS										
Amber glass (hydrochloric acid) 23-WT-001A	E508	06-Sep-2023	12-Sep-2023	7 hrs	143 hrs	✖ EHTR-FM	12-Sep-2023	7 hrs	143 hrs	✖ EHTR-FM
Total Metals : Total Mercury in Water by CVAAS										
Amber glass (hydrochloric acid) 23-WT-005A	E508	06-Sep-2023	12-Sep-2023	7 hrs	143 hrs	✖ EHTR-FM	12-Sep-2023	7 hrs	143 hrs	✖ EHTR-FM
Total Metals : Total Mercury in Water by CVAAS										
Amber glass (hydrochloric acid) 23-WT-004A	E508	06-Sep-2023	12-Sep-2023	7 hrs	143 hrs	✖ EHTR-FM	12-Sep-2023	7 hrs	144 hrs	✖ EHTR-FM



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group	Method	Sampling Date	Extraction / Preparation				Analysis			
Container / Client Sample ID(s)			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Mercury in Water by CVAAS										
Amber glass (hydrochloric acid) 23-WT-003A	E508	06-Sep-2023	12-Sep-2023	7 hrs	144 hrs	✖ EHTR-FM	12-Sep-2023	7 hrs	144 hrs	✖ EHTR-FM
Total Metals : Total Mercury in Water by CVAAS										
Amber glass (hydrochloric acid) 23-WT-002A	E508	06-Sep-2023	12-Sep-2023	8 hrs	144 hrs	✖ EHTR-FM	12-Sep-2023	8 hrs	144 hrs	✖ EHTR-FM
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) 23-WT-001A	E420	06-Sep-2023	08-Sep-2023	180 days	2 days	✔	08-Sep-2023	180 days	2 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) 23-WT-002A	E420	06-Sep-2023	08-Sep-2023	180 days	2 days	✔	08-Sep-2023	180 days	2 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) 23-WT-003A	E420	06-Sep-2023	08-Sep-2023	180 days	2 days	✔	08-Sep-2023	180 days	2 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) 23-WT-004A	E420	06-Sep-2023	08-Sep-2023	180 days	2 days	✔	08-Sep-2023	180 days	2 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) 23-WT-005A	E420	06-Sep-2023	11-Sep-2023	180 days	5 days	✔	11-Sep-2023	180 days	5 days	✖ EHT

Legend & Qualifier Definitions

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

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)							
Biochemical Oxygen Demand - 5 day	E550	1124421	1	20	5.0	5.0	✓
Conductivity in Water	E100	1122772	1	10	10.0	5.0	✓
Free Chlorine (Residual) by DPD Colourimetry	E327	1123437	1	5	20.0	5.0	✓
pH by Meter	E108	1122771	1	17	5.8	5.0	✓
Thermotolerant (Fecal) Coliform (Enzyme Substrate)	E010.FC	1123804	0	19	0.0	5.0	✗
Total Chlorine (Residual) by DPD Colourimetry	E326	1123436	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1129463	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1127598	1	37	2.7	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1123547	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Biochemical Oxygen Demand - 5 day	E550	1124421	1	20	5.0	5.0	✓
Conductivity in Water	E100	1122772	1	10	10.0	5.0	✓
Free Chlorine (Residual) by DPD Colourimetry	E327	1123437	1	5	20.0	5.0	✓
Oil & Grease by Gravimetry	E567	1131137	2	40	5.0	5.0	✓
pH by Meter	E108	1122771	1	17	5.8	5.0	✓
Total Chlorine (Residual) by DPD Colourimetry	E326	1123436	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1129463	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1127598	2	37	5.4	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1123547	1	20	5.0	5.0	✓
Method Blanks (MB)							
Biochemical Oxygen Demand - 5 day	E550	1124421	1	20	5.0	5.0	✓
Conductivity in Water	E100	1122772	1	10	10.0	5.0	✓
Free Chlorine (Residual) by DPD Colourimetry	E327	1123437	1	5	20.0	5.0	✓
Oil & Grease by Gravimetry	E567	1131137	2	40	5.0	5.0	✓
Thermotolerant (Fecal) Coliform (Enzyme Substrate)	E010.FC	1123804	1	19	5.2	5.0	✓
Total Chlorine (Residual) by DPD Colourimetry	E326	1123436	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1129463	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1127598	2	37	5.4	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1123547	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Total Mercury in Water by CVAAS	E508	1129463	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1127598	1	37	2.7	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
Thermotolerant (Fecal) Coliform (Enzyme Substrate)	E010.FC ALS Environmental - Winnipeg	Water	APHA 9223 (mod)	The enzyme substrate test detects Thermotolerant Coliforms in a 100 mL sample after an 18 hour incubation at $44.5 \pm 0.2^{\circ}\text{C}$.
Conductivity in Water	E100 ALS Environmental - Winnipeg	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 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally $20 \pm 5^{\circ}\text{C}$). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	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 $104 \pm 1^{\circ}\text{C}$, 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.
Total Chlorine (Residual) by DPD Colourimetry	E326 ALS Environmental - Winnipeg	Water	APHA 4500-Cl G (mod)	Chlorine (residual), as free or total, is analyzed using the DPD colourimetric method. The recommended hold time for this test is 15 minutes and field testing is recommended when determining Chlorine concentrations at the time of sampling. Chlorine if present in a sample container after sampling can be rapidly consumed by any inorganic or organic matter in the sample and dissipates rapidly into headspace. Laboratory results may be requested when chlorine concentrations that may be present at the time of laboratory analysis are required for the interpretation of other laboratory analysis where the presence of Chlorine may affect results. e.g. laboratory toxicity testing
Free Chlorine (Residual) by DPD Colourimetry	E327 ALS Environmental - Winnipeg	Water	APHA 4500-Cl G (mod)	Chlorine (residual), as free or total, is analyzed using the DPD colourimetric method. The recommended hold time for this test is 15 minutes and field testing is recommended when determining Chlorine concentrations at the time of sampling. Chlorine if present in a sample container after sampling can be rapidly consumed by any inorganic or organic matter in the sample and dissipates rapidly into headspace. Laboratory results may be requested when chlorine concentrations that may be present at the time of laboratory analysis are required for the interpretation of other laboratory analysis where the presence of Chlorine may affect results. e.g. laboratory toxicity testing



<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	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.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Winnipeg	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.
Oil & Grease by Gravimetry	E567 ALS Environmental - Winnipeg	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane and the extract is evaporated to dryness. The residue is then weighed to determine Oil and Grease.
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Oil & Grease Extraction for Gravimetry	EP567 ALS Environmental - Winnipeg	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane by liquid-liquid extraction.

QUALITY CONTROL REPORT

Work Order	: WP2322310	Page	: 1 of 12
Client	: APEX Geoscience Ltd.	Laboratory	: ALS Environmental - Winnipeg
Contact	: Philo Schoeman	Account Manager	:
Address	: 217 - 401 Queen Street West Toronto ON Canada M5V 0R2	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: ----	Date Samples Received	: 07-Sep-2023 09:08
PO	: ----	Date Analysis Commenced	: 07-Sep-2023
C-O-C number	: ----	Issue Date	: 14-Sep-2023 13:37
Sampler	: ----		
Site	: ----		
Quote number	: Analytical Testing		
No. of samples received	: 5		
No. of samples analysed	: 5		

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.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Ana Srzic		Winnipeg Organics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Oren Wurenqiqige	Analyst	Winnipeg Microbiology, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba



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

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).

					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: 1122771)											
WP2322352-002	Anonymous	pH	----	E108	0.10	pH units	7.27	7.29	0.275%	4%	----
Physical Tests (QC Lot: 1122772)											
WP2322352-002	Anonymous	Conductivity	----	E100	2.0	µS/cm	1820	1830	0.383%	10%	----
Physical Tests (QC Lot: 1123547)											
WP2322186-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	2.0	2.7	0.7	Diff <2x LOR	----
Inorganics (QC Lot: 1123436)											
WP2322310-001	23-WT-001A	Chlorine, total	7782-50-5	E326	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Inorganics (QC Lot: 1123437)											
WP2322310-001	23-WT-001A	Chlorine, free	7782-50-5	E327	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1124549)											
WP2322183-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<3.0 µg/L	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.17 µg/L	0.00018	0.000006	Diff <2x LOR	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	864 µg/L	0.883	2.23%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	0.653	0.656	0.480%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	3.49 µg/L	0.00350	0.000008	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	102 µg/L	0.104	1.70%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.077 µg/L	0.000074	0.000003	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0079	0.0080	0.00006	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	195 µg/L	0.189	2.94%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	4.18 µg/L	0.00411	1.64%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.115 µg/L	0.000132	0.000018	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	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
Total Metals (QC Lot: 1124549) - continued											
WP2322183-002	Anonymous	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	197 µg/L	0.193	0.004	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	430 µg/L	0.41	0.02	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	23600 µg/L	23.0	2.56%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	11.3 µg/L	0.0115	1.67%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	5960 µg/L	5.90	0.979%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	8.9 µg/L	0.0086	0.0003	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Total Metals (QC Lot: 1129463)									
WP2322246-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1124421)											
WP2322254-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	6.0	mg/L	38.7	38.8	0.3%	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: 1122772)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1123547)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Inorganics (QCLot: 1123436)						
Chlorine, total	7782-50-5	E326	0.05	mg/L	<0.050	----
Inorganics (QCLot: 1123437)						
Chlorine, free	7782-50-5	E327	0.05	mg/L	<0.050	----
Microbiological Tests (QCLot: 1123804)						
Coliforms, thermotolerant [fecal]	----	E010.FC	1	MPN/100mL	<1	----
Total Metals (QCLot: 1124549)						
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: 1124549) - 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: 1127598)						
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	# 0.00013	B
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	----



Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1127598) - continued						
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	# 0.11	B
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: 1129463)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Aggregate Organics (QCLot: 1124421)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1127639)						
Oil & grease (gravimetric)	----	E567	5	mg/L	<5.0	----
Aggregate Organics (QCLot: 1131137)						
Oil & grease (gravimetric)	----	E567	5	mg/L	<5.0	----

Qualifiers

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



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: 1122771)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1122772)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1123547)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.2	85.0	115	----
Inorganics (QCLot: 1123436)									
Chlorine, total	7782-50-5	E326	0.05	mg/L	0.2 mg/L	105	75.0	125	----
Inorganics (QCLot: 1123437)									
Chlorine, free	7782-50-5	E327	0.05	mg/L	0.2 mg/L	104	75.0	125	----
Total Metals (QCLot: 1124549)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	107	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	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	96.0	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	106	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	109	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	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	103	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	99.5	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.4	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----



Sub-Matrix: Water

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: 1124549) - continued									
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	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	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	102	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	107	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	105	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	99.0	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	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	104	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	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	105	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Total Metals (QCLot: 1127598)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	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	101	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	99.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	90.5	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	103	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	98.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
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	104	80.0	120	----



Sub-Matrix: Water					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
Analyte	CAS Number	Method	LOR	Unit					
Total Metals (QCLot: 1127598) - continued									
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	103	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	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	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	100	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	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	97.6	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	94.0	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.4	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.6	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	98.6	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.5	80.0	120	----
Total Metals (QCLot: 1129463)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	106	80.0	120	----
Aggregate Organics (QCLot: 1124421)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	103	85.0	115	----
Aggregate Organics (QCLot: 1127639)									
Oil & grease (gravimetric)	----	E567	5	mg/L	100 mg/L	102	70.0	130	----
Aggregate Organics (QCLot: 1131137)									
Oil & grease (gravimetric)	----	E567	5	mg/L	100 mg/L	90.2	70.0	130	----



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.

					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: 1124549)										
WP2322183-002	Anonymous	Aluminum, total	7429-90-5	E420	0.198 mg/L	0.2 mg/L	98.8	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, total	7440-39-3	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00955 mg/L	0.01 mg/L	95.5	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	0.00418 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, total	7440-70-2	E420	3.93 mg/L	4 mg/L	98.3	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, total	7440-50-8	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Iron, total	7439-89-6	E420	1.90 mg/L	2 mg/L	94.8	70.0	130	----
		Lead, total	7439-92-1	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0938 mg/L	0.1 mg/L	93.8	70.0	130	----
		Magnesium, total	7439-95-4	E420	1.02 mg/L	1 mg/L	102	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0196 mg/L	0.02 mg/L	98.0	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	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.3 mg/L	10 mg/L	103	70.0	130	----
		Potassium, total	7440-09-7	E420	4.25 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0433 mg/L	0.04 mg/L	108	70.0	130	----
		Silicon, total	7440-21-3	E420	10.6 mg/L	10 mg/L	106	70.0	130	----
		Silver, total	7440-22-4	E420	0.00427 mg/L	0.004 mg/L	107	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	0.0232 mg/L	0.02 mg/L	116	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.4 mg/L	20 mg/L	107	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0418 mg/L	0.04 mg/L	105	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00371 mg/L	0.004 mg/L	92.8	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: 1124549) - continued										
WP2322183-002	Anonymous	Thorium, total	7440-29-1	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0207 mg/L	0.02 mg/L	103	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	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00388 mg/L	0.004 mg/L	97.1	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.415 mg/L	0.4 mg/L	104	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0433 mg/L	0.04 mg/L	108	70.0	130	----
Total Metals (QCLot: 1129463)										
WP2322276-006	Anonymous	Mercury, total	7439-97-6	E508	0.000106 mg/L	0.0001 mg/L	106	70.0	130	----

APPENDIX C

2023 Core Drilling: Collar Table and Site Reclamation Photos

2023 Lac 50 – Main Zone - Core Drill Hole Coordinates

Target Area	Drill Hole ID	X_E_N83Z14	Y_N_N83Z14	Azimuth (°)	Dip (°)	EOH (m)	Start	End
Main Zone	23-LC-001	519794.7	6939863.1	25	-55	234.00	4-Jul-23	8-Jul-23
Main Zone	23-LC-002	519323.0	6939975.0	25	-59	260.00	8-Jul-23	10-Jul-23
Main Zone	23-LC-003	519668.9	6939766.3	25	-55	197.00	8-Jul-23	11-Jul-23
Main Zone	23-LC-004	519005.3	6940003.7	24	-55	317.00	10-Jul-23	14-Jul-23
Main Zone	23-LC-005	519489.2	6939861.8	25	-55	269.00	12-Jul-23	16-Jul-23
Main Zone	23-LC-006	519005.3	6940003.7	24	-70	362.00	14-Jul-23	20-Jul-23
Main Zone	23-LC-007	519307.1	6939837.2	24.85	-60.2	380.00	17-Jul-23	21-Jul-23
Main Zone	23-LC-008	518957.0	6939965.0	23	-74	402.80	21-Jul-23	24-Jul-23
Main Zone	23-LC-009	519131.0	6940067.0	44	-58	242.00	21-Jul-23	24-Jul-23
Main Zone	23-LC-010	519131.0	6940067.0	50	-70	326.00	24-Jul-23	28-Jul-23
Main Zone	23-LC-011	518717.0	6940231.0	25.1	-54	215.00	25-Jul-23	27-Jul-23
Main Zone	23-LC-012	518458.2	6940274.5	26	-60	347.00	28-Jul-23	2-Aug-23
Main Zone	23-LC-013	519074.0	6939978.0	25	-85	17.00	28-Jul-23	29-Jul-23
Main Zone	23-LC-013A	519074.0	6939978.0	25	-85	413.00	29-Jul-23	4-Aug-23
Main Zone	23-LC-014	518458.2	6940274.5	26	-70	362.00	03-Aug-23	06-Aug-23
Main Zone	23-LC-015	518200.3	6940388.9	28	-60	359.00	04-Aug-23	05-Aug-23
Main Zone	23-LC-016	518394.1	6940471.3	24	-60	26.00	05-Aug-23	07-Aug-23
Main Zone	23-LC-016A	518394.1	6940471.3	24	-60	44.00	07-Aug-23	08-Aug-23
Main Zone	23-LC-016B	518400.0	6940484.0	24	-60	143.00	25-Aug-23	27-Aug-23
Main Zone	23-LC-017	518023.0	6940420.0	35	-45	302.00	25-Aug-23	30-Aug-23
Main Zone	23-LC-018	518203	6940315	26	-60	444.00	28-Aug-23	4-Sep-23

2023 Lac 50 – Main Zone - Core Drill Site Reclamation Photos



23-LC-001



23-LC-002



23-LC-003



23-LC-004, 23-LC-006



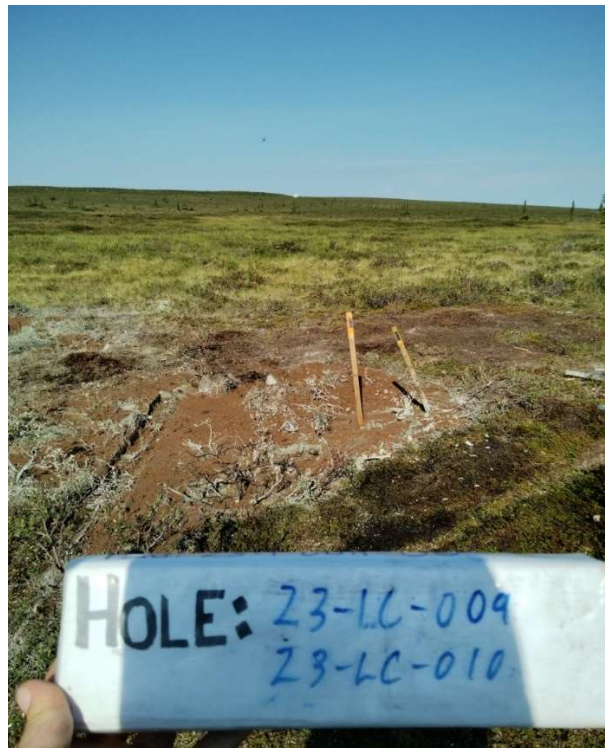
23-LC-005



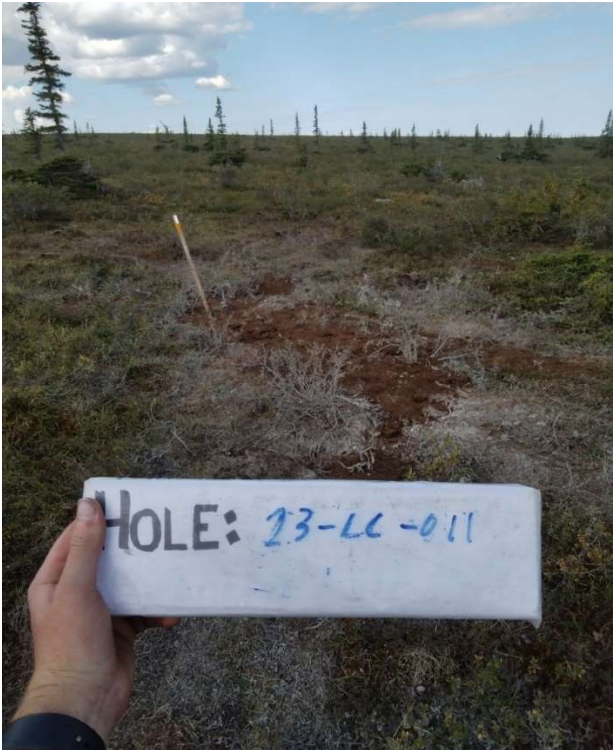
23-LC-007



23-LC-008



23-LC-009, 23-LC-010



23-LC-011



23-LC-012, 23-LC-014



23-LC-013, 23-LC-013A



23-LC-015



23-LC-016, 23-LC-016A



23-LC-016B



23-LC-017



23-LC-018