Final Report

Prepared for:

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Prepared by:

K'alo-Stantec Limited

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Limitations and Sign-off

This report titled Gordon Lake Group of Sites Long-Term Monitoring Report – Year 6 was prepared by K'alo-Stantec Limited ("K'alo-Stantec") for the account of Public Services and Procurement Canada (the "Client"). This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential liabilities associated with the identified property.

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sampling results are indicative of the condition of the entire Site. As the purpose of this report is to identify site conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the Site is beyond the scope of this assessment.

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Executive Summary

K'alo-Stantec Limted (K'alo-Stantec) was contracted by Public Services and Procurement Canada, on behalf of Crown-Indigenous Relations and Northern Affairs Canada - Contaminants and Remediation Directorate, to complete Year 6 of the Gordon Lake Group of Sites (GLG Sites) Long-Term Monitoring (LTM) program. Year 6 of the program consists of a modified Phase I LTM program as the Performance Assessment Review (PAR) and Phase II LTM Plan were both still in development at the time of the workplan for Year 6 of the GLG Sites LTM. The scope of work for Year 6 of the LTM Program included several tasks outlined in the Phase I LTM Plan but excluded work with a biennial monitoring frequency (completed in Years 1, 3, and 5) and with a quadrennial monitoring frequency (completed in Years 1 and 5).

The GLG Sites consist of six mine sites and three advanced exploration sites located approximately 80 kilometres northeast of Yellowknife, Northwest Territories. These sites are as follows: former mines Burnt Island, Camlaren, Goodrock, Kidney Pond, Treacy, and West Bay and former exploration sites Murray Lake, Storm property and Try Me.

The purpose of the Phase I LTM Plan is to confirm that the selected remedial/risk management measures implemented during the remediation program remain protective of human health and the environment by monitoring the potential for residual risks remaining at the nine GLG Sites following the completion of the remediation program.

The modified LTM program conducted in Year 6 consisted of monitoring the Surveillance Network Program (SNP), including groundwater and surface water sampling in fourteen locations. Groundwater and surface water sampling consisted of monitoring for *in-situ* field parameter and laboratory analysis of samples for general chemistry, total metals and petroleum hydrocarbon parameters.

Results of Year 6 monitoring indicate generally consistent results to previous LTM Years. Applied guideline exceedances of aluminum and iron in surface water samples collected from SNP 2016-11d, both in 2024 and historical were concluded to likely be related to elevated total suspended solid measurements. Applied guideline exceedances of ammonia were observed in groundwater samples from five of the six monitoring wells. Ammonia exceedances were previously not reported in groundwater samples at the GLG Sites. Parameters that were elevated above guidelines in SNP 2016-7 samples in 2024 were plotted with historically reported concentrations and include aluminum, iron, sulphate, cadmium, copper, manganese, and nickel. It was observed that reported elevated concentrations of ammonia in 2024 were attributed to different guidelines being used in 2024. Additionally, concentrations of uranium appear to be increasing in SNP 2016-7a and SNP 2016-7c over time, and selenium has been observed to be increasing in concentration over time in SNP 2016-7d.



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The modified Year 6 LTM program also included monitoring of and downloading of data from the instruments installed in Tailings and Soil Containment Area (TSCA) at Camlaren. During these monitoring events thermistor VT1, which had offline since September of 2022 and vibrating wire piezometer (VWP) VB2, which had been offline since September 2020, were repaired. A geotechnical visual dam inspection was also completed and is presented in a separate under a separate cover.

Results of thermistor data downloaded during Year 6 indicated generally consistent results to previous Years. It should be noted that VT1, which was repaired in 2024, requires calibration.

Visual monitoring at the mine sites Burnt Island, Camlaren (and Zenith Island), Kidney Pond, Treacy, and West Bay, included inspections identifying the following: erosion, frost action, sloughing and cracking, animal burrows, vegetation re-establishment and percentage cover, vegetation stress, soil or water staining, odours, seepage points or ponded water, exposed debris, and any other features which may compromise the integrity of the site.

Recommendations based on the Year 6 LTM program include:

- Burnt Island Portal: deep depressions at top of backfilled area. Top of slope should be closely monitored
- Burnt Island Shaft: small depression observed on the southwest end of the shaft. Should be monitored for changes
- Camlaren TSCA: animal burrowing that occurred in the Summer and Fall of 2024 should be repaired and animal deterrents should be installed where applicable/practical. For the minor erosion, regrading to prevent concentrated overland flow is recommended
- Kidney Pond Portal: Rills and evidence of settling observed on south side of slope. Rills appear similar in size and location as previous years. Continue monitoring for changes.
- West Bay Open Pit: fence was observed to be falling over in spots, and gaps under the fence are up to 1 m high in areas. This allows access to both animals and humans to the open pit

The statements made in this Executive Summary text are subject to the limitations included in "Limitations and Signoff" section and are to be read in conjunction with the remainder of this report.



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Abbreviations

°C	degrees Celsius
ALS	ALS Environmental
ARD	acid rock drainage
BFD	blind field duplicate
BP	before present
BTEX	benzene, toluene, ethylbenzene, and xylenes
CALA	Canadian Association for Laboratory Accreditation
CCME	Canadian Council and Ministers of the Environment
CEQG	Canadian Environmental Quality Guidelines
CF	calibration factor
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
COA	certificate of analysis
COSEWIC	
DO	dissolved oxygen
FAL	freshwater aquatic life
FCSI	Federal Contaminated Sites Inventory
FIGQG	Federal Interim Groundwater Quality Guidelines
GLG Sites	Gordon Lake Group Sites
GPS	global positioning system
GSI	geotechnical site inspection
ha	hectares
ID	identification
IDEA	Interdepartmental Data Exchange Application
K'alo-Stantec	K'alo-Stantec Limited
km	kilometre
kPa	kilopascal
L	B unit
	initial instrumental B unit



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Lat	Latitude
LNAPL	Light non-aqueous phase liquids
LOD	limit of detection
Long	Longitude
LTM	Long-Term Monitoring
LUP	Land Use Permit
m	metre
masl	metres above sea leve
mbgs	metres below ground surface
mbp	metres below pipe
mg/L	milligrams per litre
mL/min	millilitres per minute
mm	millimetres
MVLWB	Mackenzie Valley Land and Water Board
NT	Northwest Territories
NWT SARC	Northwest Territories Species at Risk Committee
ORP	oxidation reduction potentia
PAR	Performance Assessment Review
PHC	Petroleum Hydrocarbor
PSPC	Public Services and Procurement Canada
QA/QC	Quality Assurance and Quality Contro
QMS	quality management system
RPD	Relative Percent Difference
S	barometric pressure
S ₀	initial instrumental barometric pressure
SAR	Species at Risk
SARA	
SCC	Standards Council of Canada
SCP	specific conductance
SNP	Surveillance Network Program
SOP	Standard Operating Procedure



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Stantec	Stantec Consulting Ltd.
Т	temperature
T ₀	initial instrumental temperature
TDS	total dissolved solids
TF	temperature correction factor
TSCA	Tailings and Soil Containment Area
TSS	Total Suspended Solids
UTM	Universal Transverse Mercator
VWP	vibrating wire piezometer
١٨/١	water licence



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1 Introduction

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Public Services and Procurement Canada (PSPC), on behalf of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Contaminants and Remediation Directorate, contracted K'alo-Stantec Limited (K'alo-Stantec) to complete monitoring activities for Year 6 of the Long-Term Monitoring (LTM) Program at the Gordon Lake Group Sites (GLG Sites). The GLG Sites fall within the Akaitcho Territory and are located in the Mowhì Gogha De Niitlèè boundary within the Wek'èezhìi management area of the Tłįchǫ settlement area. All nine Sites fall under the custodial responsibility of CIRNAC. The area is asserted as a traditional use area for Métis people of the Great Slake Lake area, who are represented by the Northwest Territory Métis Nation and the North Slave Métis Alliance.

The GLG Sites area a group of six mine sites and three advanced exploration sites located approximately 80 kilometres (km) northeast of Yellowknife, Northwest Territories (NT) (refer to Figure A.1, Appendix A). The sites were active between the late 1930s and 2008 with activities ranging from open-pit mining to exploratory drilling. The mine sites include Burnt Island, Camlaren, Goodrock, Kidney Pond, Treacy, and West Bay, and the advanced exploration sites include Murray Lake, Storm Property, and Try Me.

1.1 Objectives

The overall objectives of LTM were defined in the Phase I LTM Plan (Stantec, 2018a) and aim to confirm that the implemented remedial/risk management measures remain protective of human health and the environment. This is done by monitoring the potential for residual risks remaining at the GLG Sites following the completion of the remediation program.

The Phase I LTM Plan was established by Stantec in 2018 (Stantec, 2018a) and was set to begin in 2019 and run for five years ending in 2023. At the completion of this phase, results were to be evaluated within a Performance Assessment Review (PAR) to determine if monitoring is concluded (i.e. site closure), or if additional monitoring is required at a reduced frequency. At the time of the development of the Year 6 workplan, the PAR was underway, and the Phase II LTM Plan had not yet been completed. Due to these circumstances, a modified LTM Program following the existing Phase I LTM Plan and incorporating select recommendations from the Year 5 Annual LTM Report (AECOM, 2024), was implemented.

The scope of work for Year 6 of the LTM Program included several tasks outlined in the Phase I LTM Plan but excluded work with a biennial monitoring frequency (completed in Years 1, 3, and 5) and with a quadrennial monitoring frequency (completed in Years 1 and 5). It was assumed that these monitoring components were completed during the previous year's activities (in Year 5).



1.2 Scope of Work

The scope of work for the Year 6 of LTM Program includes a modified LTM program following the existing Phase I LTM Plan and is defined as follows:

- Review the Phase I LTM Plan, Years 1 through 5 Monitoring Reports, and the Water Licence (WL) and Land Use Permit (LUP)
- Prepare a Safe Work Plan
- Submit a Work Plan including the proposed schedule, sampling plan, measurement methodologies, quality assurance / quality control (QA/QC) procedures and Project personnel
- Complete a visual geotechnical dam inspection at the Camlaren Tailings and Soil Containment Area (TSCA)
- Conduct a bi-annual visual monitoring at six mine sites for erosional features and vegetation
- Inspection and data downloads from the instrumentation installed on the TSCA, monthly during open water
- Surveillance Network Program (SNP) monitoring consisting of groundwater sampling at 6
 locations at Camlaren, and surface water sampling in 18 locations: 1 at Burnt Island, 7 at
 Camlaren, 1 at Kidney Pond, 1 at Treacy, 8 at West Bay, monthly during open water
- Provide training to and include the Job Shadow arranged by CIRNAC as part of the Community Based Monitoring initiative
- Complete Daily and Monthly Field Reports after the completion of each field investigation
- Complete a Job Shadow report following the field program
- Complete Year 6 Long-Term Monitoring Report
- Complete Year 6 Long-Term Monitoring Geotechnical TSCA Dam Inspection Report

1.2.1 Reporting

This Year 6 LTM report provides the results of the field assessment activities undertaken in 2024. Supplementary information is provided in the appendices, including site figures presented in Appendix A, data tables provided in Appendix B, a photographic log displayed in Appendix C, inspection forms provided in Appendix D, daily field reports presented in Appendix E, copies of the laboratory certificates of analysis (COAs) provided in Appendix F, and the 2024 Camlaren Tailings and Soil Containment Area Annual Geotechnical Inspection Report is provided in Appendix G.



2 Site Background

2.1 List of Key Documents

K'alo-Stantec reviewed historical reports provided by CIRNAC. These reports included information about methodologies used during previous LTM program years, past and present site conditions, difficulties encountered in the past, future recommendations, and potential considerations for the Year 6 of the LTM program. The key documents reviewed included:

- Mackenzie Valley Land and Water Board (MVLWB, 2016. Land Use Permit (LUP) MV2016X0021 (MVLWB, 2016)
- MVLWB, 2017. Water Licence (WL) MV2016L8-0006 (MVLWB, 2017)
- MVLWB, 2019. WL MV2016L8-0006 Version 1 (MVLWB, 2019)
- MVLWB, 2024. WL MV2023L8-0017 (MVLWB, 2024), this document was not available during the planning stages of the Year 6 LTM
- Stantec, 2018. Phase I Long-Term Monitoring Plan Gordon Lake Group of Sites (Stantec, 2018a)
- Stantec Consulting Ltd. (Stantec), 2018. UPDATED REPORT: Construction and Post Construction Monitoring Plan – Gordon Lake Group Sites (Stantec, 2018b)
- Stantec, 2020. Long-Term Monitoring (Year 1) Gordon Lake Group of Sites (Stantec, 2020)
- Stantec, 2021. Long-Term Monitoring (Year 2) Gordon Lakes Group of Sites (Stantec, 2021)
- Englobe Corp., 2022. Long-Term Monitoring (Year 3) Gordon Lakes Group of Sites, NWT (Englobe, 2022a)
- Englobe Corp., 2023. Comprehensive Monitoring (Year 4) Report Long-Term Monitoring of Gordon Lake Group, NWT (Englobe, 2022b)
- AECOM., 2024. Gordon Lake Group Sites Long-Term Monitoring Year 5 (AECOM, 2024)

2.2 Site Description

The GLG Sites were active between the late 1930s and 2008 with several companies involved in the mining operations. Activities ranged from open-pit mining to exploratory drilling and were generally undertaken independently between the mine sites. With the mine sites abandoned, several environmental concerns arose from materials and debris left on-site including:

- Petroleum hydrocarbon (PHC) and/or metal impacted soil/tailings, sediment/submerged tailings, and surface water
- Tailings and waste rock piles with the potential to produce acid rock drainage (ARD)
- Hazardous and non-hazardous debris and physical hazards (mine openings and trenches)



Remediation efforts were conducted at the GLG Sites between 2017 and 2019, and the Phase I LTM Plan was put in place to monitor the effectiveness of these efforts, beginning in 2019. The Phase I LTM components for each of the GLG Sites are outlined in Table B.1 in Appendix B. Site specific identification information is outlined in Table 2.1.

General descriptive information applicable to the GLG Sies is provided in the following sub-sections. As many general site characteristics have not changed over time (e.g., ecozones, geologic setting), some of the information provided in the following sub-sections is sourced directly from the Gordon Lake Gap Assessment Report (Stantec, 2016).

2.2.1 Climate and Weather

The GLG Sites are situated in the subarctic climate zone and experience brief, cool summers and long cold winters with low levels of precipitation concentrated in the summers (Ritter, 2003). The nearest long-term weather station (Station ID 2204100) is located at the Yellowknife airport, approximately 80 km to the southwest of Gordon Lake. According to historical averages (1991-2020) provided by the Government of Canada's Climate Normals Station Data, the weather station reports seven months of subzero temperatures for the area. The highest and lowest average temperatures are reported for July (17.1 degrees Celsius [°C]) and January (-25.5 °C), respectively. The majority of the yearly precipitation occurs during the five summer months, 172.5 millimetres (mm) with the winter months recording an average of 121.4 mm of precipitation (ECCC, 2024).

2.2.2 Hydrology

As stated in the Gordon Lake Gap Assessment Report (Stantec, 2016):

"The watershed surrounding the GLG Sites is difficult to define as the area is encompassed by a vast number of smaller water bodies. The Cameron River system, which is located near the West Bay site, has been defined as the location to which the lake's water outlets. Seven months of the year, typically subzero temperatures cause the surface water to freeze. This may cause a flux in precipitation infiltration, which results in either surface water runoff or a greater accumulation on the surface (Humphries, 2005)."

2.2.3 Surficial Geology and Mineralization

As stated in the Gordon Lake Gap Assessment Report (Stantec, 2016):

"The GLG Sites lie within the Slave Province, an Archean granite-greenstone terrane located in the northwestern Canadian Shield. The supracrustal rocks of this terrane comprise sedimentary and volcanic rocks intruded by granitic bodies that have undergone multiple phased deformation events and date between 2.71 and 2.65 x 10⁹ years ago) (Mortensen, Thorpe, Padgham, King, & Davis, 1988). The GLG Sites occur within the Burwash Formation, part of the Duncan Lake Group, assigned to the Yellowknife Supergroup (Bleeker & Villeneuve, 1995). The metasedimentary rocks of the Burwash Formation are dominantly low to high grade metamorphosed turbidite (metaturbite) sequences of well-preserved mudstone grading to greywacke. The GLG Sites are situated on two members of the Burwash Formation, Atl and Atm, low-grade and medium-grade metaturbites, respectively.



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Table 2.1 Site Identification Information

GLG Site	FCSI ¹ Number of Contaminated Site	Site Name as listed in IDEA ²	Reporting Organization	Legal description or metes and bounds	Approximate Site Area (ha) ³	Lat/Long (degrees, min, sec) ⁴	Centre of Site Coordinates UTM ⁵	NWT ⁶ Contaminated/ Waste Site Database Number
Burnt	23547	Burnt Island	CIRNAC	n/a	12.9	63°3'49" N	6994531 m N	220
Island		Mine Site				113°10'6" W	390423 m E	
Camlaren	162	Camlaren Mine	CIRNAC	n/a	12	62°59'8" N	6985896 m N	205
						113°12'19" W	388258 m E	
Goodrock	351	Goodrock Mine	CIRNAC	n/a	2.67	63°01'51" N	6990816 m N	466
						113°08'1" W	392056 m E	
Kidney	24120	Kidney Pond /	CIRNAC	n/a	10	62°57'20" N	6982742 m N	474
Pond		Knights Bay				113°20'9" W	381430 m E	
Murray	24158	Murray Lake	CIRNAC	n/a	3.2	63°00'45" N	6989573 m N	490
Lake		Exploration Site				113°24'30" W	278251 m E	
Storm	24145	Storm Property	CIRNAC	n/a	2.4	63°00'21" N	6988017 m N	471
Property						113°07'29" W	392413 m E	
Treacy	24141	Treacy Mine	CIRNAC	n/a	0.5	63°56'28" N	6981182 m N	475
						113°20'14" W	381894 m E	
Try Me	24155	Try Me	CIRNAC	n/a	2.5	63°04'09" N	6995654 m N	488
		Exploration Site				113°28'32" W	374744 m E	
West Bay	C1037001	West Bay /	CIRNAC	n/a	2.5	62°55'1" N	6978287 m N	211/302
		Black Ridge				113°14'4" W	386523 m E	1

Notes:

Grey highlights refer to sites that were not visited in Year 6 of the LTM



¹ FCSI = Federal Contaminated Sites Inventory

² IDEA = Interdepartmental Data Exchange Application

³ ha = hectares

⁴ Lat/Long (degrees, min, sec) – Latitude / Longitude (degrees, minutes, seconds)

⁵ UTM = Universal Transverse Mercator

⁶ NWT = Northwest Territories

The Slave Province is recognized for its province-wide zoning of three major gold deposit types; gold hosted in 1) quartz veins, 2) shear zones, and 3) iron formations. Most gold deposits formed before the intrusion of the major granitic bodies (Ferguson, Waldron, & Bleeker, 2005). The GLG Sites feature mainly gold-sulphide bearing white-smoky quartz veins hosted in metaturbites of the Burwash Formation. Sulphide minerals associated with these deposit types include pyrite, pyrrhotite, marcasite, chalcopyrite, arsenopyrite, galena, and sphalerite.

This region was last covered by the Late Wisconsin glaciation event until about 11,000 years before present (BP) and was completely ice-free by 10,000 BP (Dyke & Prest, 1987). Paleo ice flow was generally to the southwest (Kerr, 1990) as apparent by orientation of drumlins and eskers (Olthof, Kerr, Wolfe, & Eagles, 2014).

Retreating ice-sheets deposited fine-grained glaciolacustrine sediments below 320 to 350 metre (m) elevation in the Great Bear and Great Slave basins. In the Gordon Lake area, re-worked glacial and glaciofluvial sediments are the dominant surficial material with till thickness and distribution increasing westerly and northwesterly. Till thickness varies but is generally greater than 2 m occurring as silt to gravel blankets, following bedrock topography, and may include patches of till veneer or drumlinoids.

With respect to permafrost, the Gordon Lake area is located within the extensive discontinuous permafrost zone, where permafrost can be found on 50% to 90% of the land (Heginbottom, Dubreuil, & Harker, 1995). Within the extensive discontinuous permafrost zone, ground ice content in the upper 10 m of ground is believed to range from low to medium (<10 % to approximately 20% by volume) and consist mainly of frozen pore water (i.e. interstitial ice), ice lenses and ice veins (i.e. segregated ice and reticulated ice). Ice wedges, which are a type of patterned ground resulting from thermal contraction and cracking of the ground surface (ACGR, 1998) might occur locally.

The distribution of the permafrost in the area is related to several interconnected factors such as the local climate, ground surface topography, material types and textures, vegetation coverage and drainage conditions. Similarly, the variation in the amount of ground ice present within the permafrost is found to be directly related to factors such as the nature of the surficial deposits and characteristics of the local terrain.

No data is currently available on the local distribution of the permafrost in the Gordon Lake area; however, our knowledge of northern environments suggests that peat bogs and fine-grained deposits (e.g., silty to clayey lacustrine and/or glaciolacustrine sediments) are likely the only terrain units containing permafrost in the area. Bedrock outcrops and well- to rapidly-drained, coarse-grained deposits such as till and glaciofluvial deposits are likely free of permafrost. Where permafrost is present, the active layer (i.e. the portion of soil that thaws each summer and refreezes in the winter) would typically range between 0.5 m and 1.5 m deep and would vary greatly depending on local ground conditions."



2.2.4 Bedrock Geology

As stated in the Gordon Lake Gap Assessment Report (Stantec, 2016):

"Most of the bedrock in the Gordon Lake Area is Archean (over 2.5 billion years old) or Paleoproterozoic 1.6 – 2.5 billion years old) in age (ECG, 2008). The bedrock surface is often highly fractured (frost shattered) and subject to extensive frost heave. The borrow assessment completed at the GLG Sites identified discontinuous veneers of till and glaciofluvial deposits. The till veneers generally consist of sandy material with variable amounts of angular to sub-rounded gravel to bolder size fragments. The glaciofluvial material, mainly eskers and/or outwash deposits, are predominately sandy material, with localized gravel. Coarse fragments were generally located at the surface (i.e. 0 to 30 centimetre in depth) and their frequency decreases rapidly with depth. The material is well sorted and contains very low amounts of fines (i.e. silt and clays)."

2.2.5 Biological Environment

The GLG Sites are located within the Great Slave Upland Low Subarctic Ecoregion of Taiga Shield. The landscape is dominated by southwest-sloping bedrock. The bedrock is host to scattered black spruce with dwarf birch woodlands growing along bedrock fractures. More continuous vegetation is found in the till plains and white spruce – dwarf birch – lichen woodlands are present in outwash areas. Jack pine groves can be found in the southern end of the ecoregion. This ecoregion is an important part of the winter range of several caribou herds including the Bathurst, Bluenose East, and Ahiak Herds (ECG, 2008).

2.3 Cultural, Natural, and Historical Preservation

2.3.1 Land Use and Claims

The GLG Sites fall within the asserted Akaitcho Territory and are also located in the Mowhì Gogha Dè Nilthè boundary within the Wek'èezhìi management area of the Tłicho settlement area. The area is asserted as a traditional use area represented by the Yellowknives Dene, Denínu Kúę, Łútsël K'é Dene First Nation, Fort Resolution Métis Government, and the North Slave Métis Alliance. Based on ongoing communication with project stakeholders, there is occasional recreational use of the GLG Sites by the local Indigenous community members.

2.3.2 Species at Risk

The potential presence of Species at Risk at the GLG Sites was assessed based on known ranges. Information was obtained by the Government of the Northwest Territories (Government of the Northwest Territories, 2024). Outlined in Table 2.2 are species that have ranges that include or are near the GLG Site. The territorial and federal status ranking of these species are also listed.



Table 2.2 Species at Risk at the Gordon Lake Group of Sites

Common Name	Scientific Name	NWT General Status Rank ^a	COSEWICb	Species at Risk Act Schedule 1c	Typical Habitat ^a
Mammals					
Barren-ground Caribou (Bathurst herd)	Rangifer tarandus groenlandicus	At Risk	Threatened	Not Listed ^e	Beverly herd and Bathurst herd annual range
Eastern Red Bat	Lasiurus borealis	Presence Expected	Endangered	Not Listed ^e	Suspected range
Little Brown Myotis	Myotis lucifugus	At Risk	Endangered	Endangered	Near trees and water; roosts in man-made structures, tree cavities, caves and mines
Wolverine	Gulo gulo	Sensitive	Special Concern	Special Concern	Large, sparsely inhabited wilderness
Birds					
Bank Swallow	Riparia riparia	At Risk	Threatened	Threatened	Migratory; steep banks of soft earth near water
Barn Swallow	Hirundo rustica	Sensitive	Special Concern	Threatenedd	Migratory; open areas, sheltered vertical or horizontal substrate, near water
Common Nighthawk	Chordeiles minor	Sensitive	Special Concern	Special Concern	Migratory; open woodland or in city
Evening Grosbeak	Coccothraustes vespertinus	Secure	Special Concern	Special Concern	Resident; open, mature conifer forests
Harris's Sparrow	Zonotrichia querula	Sensitive	Special Concern	Special Concern	Migratory; trees between forest and tundra
Horned Grebe	Podiceps auritus	Sensitive	Special Concern	Not Listed ^e	Migratory; small to medium ponds, shallow bays of lakes
Lesser Yellowlegs	Tringa flavipes	Sensitive	Threatened	Not Listed ^e	Migratory; open forests and muskeg, open water
Olive-sided Flycatcher	Contopus cooperi	Sensitive	Special Concern	Special Concern	Migratory; tall snags, conifers, open habitat including fires
Red-necked Phalarope	Phalaropus lobatus	Sensitive	Special Concern	Special Concern	Migratory; freshwater with low vegetation shorelines
Rusty Blackbird	Euphagus carolinus	Sensitive	Special Concern	Special Concern	Migratory; wet coniferous and mixed forests
Short-eared Owl	Asio flammeus	Sensitive	Threatened	Special Concernd	Migratory; open areas, marshes and prairie



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Common Name	Scientific Name	NWT General Status Rank ^a	COSEWIC ^b	Species at Risk Act Schedule 1°	Typical Habitat ^a
Insects					
Transverse Lady Beetle	Coccinella transversoguttata	Secure	Special Concern	Special Concern	Wide variety of habitats, throughout NT
Yellow-banded Bumble Bee	Bombus terricola	Sensitive	Special Concern	Special Concern	Habitat generalist, nests underground

Notes:

SAR = Species at Risk

COSEWIC = Committee on the Status of Endangered Wildlife in Canada

NWT SARC = Northwest Territories Species at Risk Committee



^a As listed by the NWT SARC (Government of the Northwest Territories, 2024)

^b As listed by COSEWIC (Comittee on the Status of Endangered Wildlife in Canada, 2023)

^c As listed on Schedule 1 of the Federal Species at Risk Act (Minister of Justice, 2024)

^d Species is under consideration for a status change

^e Species is under consideration for addition

3 Year 6 Long-Term Monitoring Program

The water quality monitoring program and visual monitoring and instrumentation components of the GLG Site LTM field program were completed by two K'alo-Stantec environmental professionals over four monthly field program events during the open water season (one event in each of June, July, August, and September 2024) as interpreted by K'alo-Stantec from the conditions outlined in the MVLWB WL (MV2016L8-0006 (MVLWB, 2017) and monitoring requirements described in the Phase I LTM Plan (Stantec, 2018b). MVLWB WL MV2016L8-0006 was used in the development the scope of work for the Year 6 LTM program as the updated MVLWB WL (i.e., WL MV2023L8-0017) was not available at that time.

3.1 Geotechnical Inspection

An annual Geotechnical Site Inspection (GSI) of the Camlaren TSCA was competed by a licenced Professional Engineer, following Canadian Dam Association Guidelines, during one of the four field events (July 2024). The Professional Engineer was accompanied by a support engineer. Prior to the inspection, a review of existing documents and background information relating to the structure was conducted. During the site visit, visual observations of major failures and features that may compromise the integrity of the engineered structure were documented, both in writing and with photographic records that note the scale, global positioning system (GPS) reference and directional viewpoint to document observed conditions and substantiate recorded observations. The findings of the geotechnical investigation are provided under separate cover; a summary is provided in Section 4.1 and the report titled 2024 Camlaren Tailings and Soil Containment Area Annual Geotechnical Inspection Report is provided in Appendix G.

3.2 Visual Monitoring

Non-intrusive visual monitoring was conducted to confirm cover and backfill material is stable with no significant erosion, washout or settling. Visual monitoring activities included photographing and measuring established locations to monitor year-to-year changes. Records, both photographic and notes, of erosion features, frost action, sloughing, cracking, animal burrows, soil or water staining, odours, seepage points, ponded water, water turbidity, exposed debris, condition of monitoring instruments, vegetation reestablishment, vegetation cover, vegetation health, and/or and any other features which may represent compromised integrity of a site, were collected. A photographic log was maintained and included the date, time, GPS location, direction photograph was taken, and a brief description of the contents of the photograph. In some cases, conditions observed, recorded and reported herein cannot be supported by photograph(s) due of a technical malfunction during data transfer of the June photographs.

Designated visual monitoring locations for Burnt Island, Camlaren, Goodrock, Kidney Pond, Murray Lake, the Storm Property, Treacy, Try Me and West Bay are defined in the Phase I LTM (Stantec, 2018a), are depicted in Figures A.2 to A.10.1, respectively, in Appendix A, are listed in Table B.1 in Appendix B, and photographs are presented in Appendix C.



3.3 TSCA Performance Monitoring

The TSCA is an engineered mine waste containment facility that contains Camlaren mine tailings and impacted material and non-hazardous debris from the other GLG Sites. Impacted material and non-hazardous waste from the GLG Sites were transported to Camlaren in the winter of 2018 and in the summer of 2018. Monitoring of TSCA performance is conducted by collecting data from the TSCA area until a "steady-state" is established. The scope of the TSCA monitoring is summarize in Table 3.1 and discussed below.

Table 3.1 Camlaren TSCA Performance and Geotechnical Inspection Monitoring Requirements

Engineered or Administrative Control	LTM Station	Monitoring Requirements
Visual Inspection (with Vegetation Monitoring)	-	Visually inspect top cover, slopes, toes, ditches, and instrumentation for signs of erosion, settlement, seepage, structural failure, and/or compromised liner and/or cap integrity. Visually monitor vegetative health to confirm stable or increasing growth.
TSCA	-	Visual inspection for any major failures and other features that may compromise the integrity of the engineered structure.
Standpipe Wells	MW1	Measure the groundwater elevations (metres above sea level [masl])
	MW2	within/around the TSCA.
Thermistors	VT1	Download thermal conditions within the TSCA from thermistors.
	VT2	
Vibrating Wire	VB1	Download piezometer data to measure the groundwater elevations (masl)
Piezometers	VB2	within the TSCA.
	VB3	

3.3.1 Visual Monitoring

Visual monitoring of the TSCA is conducted bi-annually to assess the TSCA performance, based on the WL (Stantec, 2018a). The inspection includes a thorough visual inspection of the top cover, slopes, toes, ditches, and instrumentation for signs of erosion, settlement, seepage, structural failure and/or compromised liner and/or cap integrity.

Potential mitigative actions are triggered by the visual inspection if the total threshold values outlined below are exceeded during the LTM program as compared to the original baseline measurements:

- Differential settlement of greater than 0.5 m (including for instrumentation stick-ups)
- Slopes slumping with horizontal cracks/movement of greater than 0.3 m
- Slopes or cover erosion resulting in greater than 25% loss of material thickness
- Frost heave effects greater than 0.2 m
- Vegetation (primarily tree species) observed that typically develop roots deeper than 0.3 m
- Animal activities, such as burrowing, resulting in depth greater than 0.3 m



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- Erosion control coco matting (full semi-circle, approximate length of 5 m) is no longer deemed effective
- Ditch erosion exposes any amount of visible liner
- Ditch blockage of any debris/object that impedes flow or causes ponding

Potential mitigative actions are summarized in Table B.1 in Appendix B. Photographic logs and detailed observation records were collected and used to support management decisions. Depending on field observations, increased monitoring frequency (e.g. approaching triggers for action), or review and/or modification of the remedial design components may be required.

It should be noted that there are no exit criteria associated with performance monitoring. However, the frequency of monitoring is to be adjusted (e.g. decreased) after the Phase I LTM is completed. Phase I LTM was initially supposed to be completed at the end of Year 5; however, with the PAR and Phase II LTM documents outstanding at the time of the development of the workplan, the monitoring frequency was not reduced for Year 6. The performance monitoring associated with the TSCA is expected to continue until deemed no longer necessary, which will be based on long-term results of performance monitoring (i.e. data obtained over decades).

3.3.2 TSCA Instrumentation

For the Year 6 LTM program, the WL, MV2016LB-0006 (MVLWB, 2017) was interpreted to include four field events during which the instrumentation installed in the TSCA will be inspected. The instrumentation includes two thermistors, six vibrating wire piezometers (VWPs) installed in three locations, and two standpipe monitoring wells. Additionally, there are four monitoring wells located outside of the TSCA footprint, which are part of the SNP network. Details of the TSCA instrumentation are summarized in Table 3.2, and the locations are presented on Figure A.3.1 in Appendix A.

Table 3.2 TSCA Instrumentation Details

Instrumentation Identification	Type of Installation	Northing	Easting	Ground Surface Elevation (masl)	Borehole Depth (mbgs) ²
VT1	Thermistor String	6986005	388351	298.89	5.9
VT2	Thermistor String	6956055	388352	298.84	7.0
VB1	VWP	6985957	388335	298.11	6.4
VB2	VWP	6986026	388381	297.99	6.1
VB3	VWP	6986079	388353	298.48	7.0
MW1	Monitoring Well	6986005	388356	298.73	5.3
MW2	Monitoring Well	6986051	388352	298.96	7.1
MW3 ¹	Monitoring Well	6986073	388393	292.41	7.2
MW4 ¹	Monitoring Well	6985962	388376	294.52	3.8
MW5 ¹	Monitoring Well	6985922	388236	296.58	4.8
MW6 ¹	Monitoring Well	6986066	388238	295.45	5.4

Notes:

² mbgs = metres below ground surface



¹ Monitoring well outside TSCA footprint, part of the SNP.

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Installation details of the six monitoring wells at the TCSA are provided in Table 3.3.

Table 3.3 Groundwater Monitoring Wells Installation Details

		Top of	Top of Screen		of Screen
Borehole Identification	Borehole Depth (m)	Depth (m)	Elevation (masl)	Depth (m)	Elevation (masl)
MW1	5.3	2.1	291.33	5.2	286.13
MW2	7.1	4.0	287.86	7.0	280.86
MW3 ¹	7.2	5.7	279.51	7.2	272.31
MW4 ¹	3.8	2.3	288.42	3.8	284.62
MW5 ¹	4.8	3.2	288.58	4.75	283.83
MW6 ¹	5.4	3.9	286.15	5.4	280.75

Note:

Thermistors were installed in the TSCA to monitor permafrost levels within the containment area. The ingress of permafrost into the containment area provides chemical and physical stability and is necessary for its longevity. The thermistor sensors were installed at 0.5 m intervals in two locations within the TSCA to depths of 5.9 m (VT1) and 7.0 m (VT2) as documented in the installation records found in Appendix D of the Phase I LTM Plan (Stantec, 2018a). Information for the installed thermistors is presented in Table 3.4.

Table 3.4 Thermistor Installation Details

Instrumentation Identification	Serial Number	Borehole Depth (m)	Depth of Lowest Thermistor (m)	Elevation of Lowest Thermistor (m)
VT1	4773	5.9	5.8	293.09
VT2	4774	7.0	7.0	291.84

Pore pressure in the TSCA is monitored with the use of VWPs. These VWPs have been installed in three locations on the TSCA, with each location consisting of a pair of nested instruments, the top VWP records pore pressure in the tailings, while the deeper instrument monitors the pore pressure near the bedrock or native soil. Installation details of the VWPs is provided in Table 3.5.



¹ Monitoring well outside TSCA footprint, part of the SNP.

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Table 3.5 VWP Installation Details

Instrumentation Identification	Serial Number	Borehole Depth (m)	Depth of Piezometer (m)	Elevation of Piezometer (m)
VB1	52115	6.4	4.95	293.16
	52116		5.95	292.16
VB2	52117	6.1	4.8	293.19
	52118		5.8	292.19
VB3	52119	7.0	5.7	292.78
	52120		6.7	291.78

Settlement of the TSCA is assessed by recording changes in the instrumentation pipes, casing stickups, and angles at the monitoring wells, thermistors and VWPs. During each monitoring event, the casing and pipe stick up is measured, and any changes in pipe angle is recorded. Pipe and casing stick up details at the time of instrument installation are listed in Table 3.6.

Table 3.6 Instrumentation Stick-Up Details

		Pi	Pipe		sing
Borehole Identification	Type of Installation	Stickup Length (m)	Top Elevation (masl)	Stickup Length (m)	Top Elevation (masl)
MW1	Monitoring Well	0.87	299.60	1.00	299.73
MW2	Monitoring Well	0.87	299.83	0.96	299.92
VB1	VWP	0.73	298.84	1.00	299.11
VB2	VWP	0.60	298.59	0.87	298.86
VB3	VWP	0.62	299.10	0.99	299.47
VT1	Thermistor String	0.20	299.09	1.00	299.89
VT2	Thermistor String	0.35	299.19	1.00	299.84

3.4 SNP

The objective of the SNP is to monitor surface and groundwater quality around the GLG Sites following criteria outlined in the Phase I LTM Plan (Stantec, 2018a). Additional modifications to the program were to be made based on results from the Year 1 and 2 LTM reports (Stantec, 2018a). The WL, MV2016LB-0006 (MVLWB, 2017) has been interpreted to require four yearly sampling events, or monthly sampling events during periods of flow.



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The SNP at the GLG Sites includes three sampling groups including:

- SNP 2016-7, including SNP 2016-7a, SNP 2016-7b, SNP 2016-7c, and SNP 2016-7d, refers to
 groundwater monitoring wells around the perimeter of the TSCA to assess that the operation of
 this area does not impact the surrounding environment
- SNP 2016-8, including SNP 2016-8a and SNP 2016-8b, refers to the monitoring of the surface
 water runoff from the TSCA. Monitoring stations are located between the TSCA and Gordon Lake
 in the direction of flow to monitor any changes in water quality from the discharge
- SNP 2016-11 includes confirmatory surface water samples from Burnt Island (2016-11a),
 Camlaren (2016-11b1, 2016-11b2, 2016-11b3, 2016-11b4, and 2016-11c), Kidney Pond
 (2016-11d), Treacy (2016-11e), and West Bay (2016-11f), as outlined in the Construction and
 Post-Construction Monitoring Plan Section 7.3.4.1 (Stantec, 2018b). This monitoring occurs
 downgradient of areas with remedial excavations, with the purpose of understanding the
 performance of the remedial activities

Sampling specification for SNP sites are summarize in Table 3.7.

3.4.1 Groundwater

The SNP includes monitoring wells MW3 (SNP 2016-7a), MW4 (SNP 2016-7b), MW5 (SNP-2016-7c), and MW6 (SNP 2016-7d). However, for continuity of discussion, monitoring wills MW1 and MW2 are discussed alongside the SNP 2016-7 stations. The SNP stations are located around the perimeter of the TSCA and are used to measure any impact of the TSCA on the surrounding groundwater. Monitoring wells MW1 and MW2 were installed in the TSCA itself and are used to monitor water levels and chemistry within the containment area.

3.4.2 Surface Water

The SNP includes both discharge water from the TSCA (SNP 2016-8, n = 2) and surface water from Gordon Lake in the receiving environment of the six GLG mines sites (SNP 2016-11, n = 9).



Table 3.7 SNP Sampling Locations, LTM Sampling Frequency, and Analytical Schedule

Description	SNP Station	Location/ Figure (Appendix A)	LTM Sampling Frequency	Parameters
Station 7	2016-7a	Camlaren/Figure A.3	Monthly during	Nutrients ²
Monitoring Well Locations at TSCA	3 VVEII 0040 71-	 Standard³ Major Ions⁴ 		
	2016-7c		liow	• Solids ⁵
	2016-7d	 Total Metals⁶ PHCs⁷ In situ field parameters⁸ 		
Station 8 Discharge Locations at TSCA	2016-8a	Camlaren/Figure A.3	Monthly when Water is present ³	 Nutrients² Standard³ Major Ions⁴
	2016-8b			 Solids⁵ Total Metals⁶ PHCs⁷ In situ field parameters⁸
Station 11	2016-11a	Burnt Island/Figure A.2	Adjusted	Nutrients ²
Surface Water Sample Locations	2016-11b1	Camlaren/Figure A.3	from biannual to	Standard ³
(downgradient of	2016-11b2		monthly to	Major lons ⁴ Number 1
significant excavation areas)	2016-11b3		align with groundwater	Solids ⁵ Total Metals ⁶
executation areas,	2016-11b4		sampling ³	PHCs ⁷
	2016-11c	Zenith Island/Figure A.3		In situ field parameters ⁸
	2016-11d	Kidney Pond/Figure A.5		
	2016-11e	Treacy/Figure A.8		
	2016-11f	West Bay/Figure A.10		

Notes:



¹ based on interpretation of original version of the water licence, MV2016L8-0006 (MVLWB, 2017)

² total ammonia, total nitrate + nitrite, total phosphorous, orthophosphate, and total organic carbon.

³ pH, temperature, and conductivity.

⁴ alkalinity, calcium, chloride, hardness, magnesium, potassium, sodium, and sulphate.

⁵ total suspended solids (TSS) and total dissolved solids (TDS).

⁶ total elemental analysis by ICP-Metal Scan of: ICP-MS 24 element scan: includes all elements in Total Metals plus antimony, arsenic, barium, bismuth, cesium, chromium, lithium, thallium, titanium, uranium, and vanadium.

⁷ Extractable Hydrocarbons, and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX).

⁸ temperature, specific conductivity, total dissolved solids, pH, turbidity, dissolved oxygen, oxidation reduction potential

3.4.3 Field Methods

3.4.3.1 Groundwater Sampling

Groundwater sampling was completed in general accordance with CCME Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment – Volume 3 Suggested Operating Procedures (CCME, 2016). The following protocols were used during groundwater sampling:

- Visual assessment of the condition of the groundwater monitoring well was completed to assess settlement/frost jacking, disturbed surface seals, missing well caps, and/or any other damage present
- Combustible and ionizable headspace vapour concentrations within the monitoring well were measured using an RKI Eagle 2™ (or equivalent) operated in the methane elimination mode
- The depth to light non-aqueous phase liquids (LNAPL), if present, the depth to groundwater, and total well depth were measured using an interface probe. The highest point of the groundwater monitoring well casing was used as a reference point to collect these measurements
 - If LNAPL was identified, LNAPL presence was confirmed using a bailer, and the LNAPL thickness in the bailer was recorded. The LNAPL was then purged and disposed of (off-site), and the groundwater monitoring well was not sampled
 - In the absence of LNAPL, groundwater sampling was completed following purging
 - If the groundwater monitoring well was observed to be dry, or groundwater was observed to be frozen, the groundwater monitoring well was not sampled
- The groundwater monitoring well was purged of stagnant groundwater using a peristaltic pump.
 In-situ field measurements (temperature, conductivity, specific conductance, pH, oxidation-reduction potential [ORP], turbidity, and dissolved oxygen [DO]) were collected using a YSI™ multi-parameter water quality meter (or equivalent)
 - Purging continued until the *in situ* field measurements stabilized or until five well volumes had been purged after which the groundwater monitoring well was sampled
 - If the groundwater monitoring well was purged dry and if limited to no recharge of the groundwater monitoring well occurred within 24 hours, groundwater sampling was not completed
 - If the groundwater monitoring well was purged dry and sufficient recharge of the groundwater monitoring well occurred within 24 hours, groundwater sampling was completed
- Groundwater samples were collected using low-flow sampling methodology using high density
 polyethylene tubing dedicated to each groundwater monitoring well. Samples were collected in
 laboratory supplied bottles and selectively analyzed for the parameters presented in Table 3.7.
 Groundwater samples for analysis of dissolved parameters were filtered through a 0.45 micron
 inline field filter prior to preservation as per laboratory specification (if applicable)
- Purge water was discharged to ground surface at a distance of greater than 10 m from the groundwater monitoring well after sampling



3.4.3.2 Surface Water Sampling

Surface water sampling was completed in general accordance with CCME Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment – Volume 3 Suggested Operating Procedures (CCME, 2016). Surface water samples were collected from surface water sampling locations as grab samples. The following protocols were used when sampling surface water:

- A swing sampler was used to collect samples from the middle of the water column, with the sample facing upstream, where applicable. Care was taken to minimize sediment disruption and limiting the capture of floating debris.
- Laboratory supplied sample bottles were filled directly from the swing sampler with exception of laboratory supplied dissolved parameters bottles (where applicable) which were field-filtered surface water using a 0.45 micron filter prior to preservation, as per laboratory specification

A YSI™ multi-parameter meter (or equivalent) was used to record *in situ* field parameters (i.e., temperature, conductivity, SPC, pH, ORP, turbidity, and DO) at each sample location. Sample location coordinates were recorded using an iPhone mapping application (Gaia GPS). Samples were collected in laboratory supplied bottles and selectively analyzed for the parameters presented in Table 3.7.

3.4.4 Regulatory Framework and Site Criteria

Regulatory guidelines used during the Phase I LTM Plan include Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CEQG) and Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites (FIGQG).

Based on the on the CCME guidance, the land use has been interpreted to be agricultural as the Site is no longer occupied and is subject to natural ecological succession. Current and future human use of the Site is limited to recreational activity and possibly country foods harvesting (e.g., hunting, fishing, gathering vegetation for consumption, etc. (Government of Canada, 2019)).

The CCME CEQG provide limits for contaminants in surface water and are intended to maintain, improve, and/or protect environmental quality and human health at contaminated sites in general. Environmental water quality guidelines are derived using toxicological data to determine the threshold level to the most sensitive receptors. The analytical results of surface water samples collected as part of the Phase I LTM Plan will be compared to the CCME Freshwater Aquatic Life (FAL) long-term guidelines (CCME, 2024).

The FIGQG were developed under the Federal Contaminated Sites Action Plan and are a tiered approach to evaluating groundwater quality. For the purposes of the GLG Sites Phase I LTM, monitoring results have been compared to the Tier 1 guidelines for agriculture land use for coarse grained soil types (Govenment of Canada, 2016).



3.5 Quality Assurance and Quality Control (QA/QC)

Best practice Standard Operating Procedures (SOPs), as part of Quality Management System (QMS), includes work procedures and instructions that are developed for technical work. K'alo-Stantec's QMS and associated SOPs allow control of the quality of work throughout the project program. Applicable K'alo-Stantec SOPs were reviewed by field personnel prior to mobilizing to site.

Samples were submitted to ALS Environmental (ALS) in Yellowknife, NT which is accredited by the Canadian Association for Laboratory Accreditation (CALA) and the Standards Council of Canada (SCC).

3.5.1 Field QA/QC

During sampling, efforts were made to collect representative samples. For each sampling event, K'alo-Stantec collected QA/QC samples, including two blind field duplicate (BFD) samples, one each to represent a surface water and a groundwater sample, one field blank representing the groundwater sample, and one blank consisting of only samples for PHCs.

3.5.2 Sample Management and Quality Control

The following field QA/QC procedures were followed during the field program:

- Equipment was calibrated according to manufacturer specifications either by the equipment rental company or by K'alo-Stantec personnel prior to fieldwork
- New nitrile gloves were used for collection of each sample
- The equipment (water level tapes, swing samplers, YSI™) used for water sampling was rinsed with deionized water between each sample
- · Samples were collected into distinctly labeled laboratory provided sampling containers
- Samples were stored on ice in coolers upon collection and a temperature of less than 10°C was maintained in the samples prior to submission to the ALS depot in Yellowknife, NT

3.5.3 Sampling Quality Control

One laboratory provided trip blank was submitted for every sampling event, totaling four samples over the course of the 2024 LTM program. Additionally, one field blank was submitted for every sampling event, totaling four samples over the course of the 2024 LTM program. Both trip and field blanks were only analyzed for PHCs and BTEX.

Two BFD samples were collected during each SNP sampling event, totaling eight samples during the Year 6 LTM program. One BFD was collected for the surface water monitoring program and one BFD was collected for the groundwater monitoring program. Data validation of the analytical results included the review of the data quality indicators (e.g., precision, accuracy, representativeness, comparability, and



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completeness). The precision of the data was quantified as the relative percent difference (RPD), calculated with the following equation:

$$RPD = \left[\frac{S_1 - S_2}{S_3}\right] \times 100$$

Where:

RPD = relative percent difference

 S_1 = original parent sample concentration

 S_2 = BFD sample concentration

 S_3 = average concentration = $(S_1 + S_2)/2$

The general industry standard for acceptable RPD in water analyses is less than or equal to 40% for field duplicated groundwater and surface water samples (CCME, 2016). RPDs are only considered to be an accurate when parameter concentrations in both the parent sample and its BFD are five times greater than the limit of detection (LOD) and are only calculated under such conditions. Where the analytical result for either sample is less than five times the LOD, no conclusion can be made with respect to the data reproducibility.

3.5.4 Laboratory QA/QC

ALS analyzed and assessed method blanks, certified reference materials, method spikes, and surrogate recoveries to monitor data quality. The QA/QC methods employed, including matrix spikes, method blanks, replicates, reference criteria, and surrogate recoveries, were reviewed to assess the reliability of the sample results. Copies of the certificates of analyses are provided in Appendix F.



4 Year 6 Long-Term Monitoring Program Results

4.1 Geotechnical Inspection

The geotechnical inspection of the Camlaren TSCA was completed on July 16, 2024, by K'alo-Stantec Engineers Steve Bundrock, P.Eng. (NAPEG) and Steffen Karl, P.Eng. (NAPEG). The visual inspections were performed on foot and aerially via helicopter with the intent to visually identify dam safety concerns, potential signs of distress in the structures (such as cracking, settlement, slumping, heave, erosion, or significant seepage), and to compare 2024 observations with historical records. No subsurface investigations, material sampling, or testing was performed. The Geotechnical Inspection report is provided under separate cover (K'alo-Stantec, 2024).

Two new dam safety deficiencies were identified during the 2024 GSI including fresh animal burrows and fresh, minor erosion. K'alo-Stantec recommended that animal burrows are backfilled with granular material with continued monitoring for animal activity in subsequent GSIs, and animal deterrents be installed to prevent future damage to the TSCA. Minor erosion is recommended to be monitored for worsening conditions with consideration to implement a more permanent solution, such as flattening embankment slopes, providing additional coarse material, or removing material that contributes to channelized flow (K'alo-Stantec, 2024).

4.2 Visual Monitoring Results

The visual monitoring component was conducted monthly during open water season, as interpreted from the WL (MVLWB, 2017). Visual monitoring was conducted on June 12 to 14, July 10 and 11, August 20 to 22, and September 11 and 12 of 2024.

4.2.1 Backfilled / Covered Area Monitoring

Backfilled and covered areas identified for the Year 6 LTM were visually inspected for settlement, erosion and structural stability (e.g., deformation and cracking) where applicable. Observations related to visual monitoring sites defined in the Phase I LTM (Stantec, 2018a) and outlined in Table B.1 of Appendix B, inspection reports are found in Appendix D below, and visual results are summarized in Table 4.1.



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Table 4.1 Summary of Backfilled/Covered Areas Monitoring Results

Site Name	Hazard Name	Area Description	Figure in Appendix A / Photograph # in Appendix C	Monitoring Results
Burnt Island	Tailings	Covered with granular fill	Figure #: A.2, A.2.1/Photo #: 6 to 9	Small rills observed throughout the area. One animal burrow observed
Camlaren	CAM_SO_01	PHC impacts excavated and covered with granular fill	Figure #: A.3, A.3.1/Photo #: 18	Evidence of animal burrowing
	CAM_SO_03	PHC impacts excavated and covered with granular fill	Figure #: A.3, A.3.1/Photo #: 15	No signs of erosion observed
	CAM_SO_04	Metals impacts excavated and covered with granular fill	Figure #: A.3, A.3.1/Photo #: 16	Signs of overland flow, and animal burrowing
	CAM_SO_05	PHC impacts excavated and covered with granular fill	Figure #: A.3, A.3.1/Photo #: 19	Evidence of staining
	CAM_SO_07	Metals impacts excavated and covered with granular fill	Figure #: A.3, A.3.1/Photo #: 17	No signs of erosion observed
	CAM_SO_08	Metals impacts excavated and covered with granular fill	Figure #: A.3, A.3.1/Photo #:21	No signs of erosion observed
	CAM_SO_12	Metals impacts excavated and covered with granular fill	Figure #: A.3, A.3.1/Photo #: 24	No signs of erosion observed
	CAM_SO_14	PHC impacts excavated and covered with granular fill	Figure #: A.3, A.3.2/Photo #: 23	No signs of erosion observed
	CAM_SO_20	Metals impacts excavated and covered with granular fill	Figure #: A.3, A.3.2/Photo #: 22	No signs of erosion observed
Zenith Island	CAM_SO_23	Metals impacts excavated and covered with granular fill	Figure #: A.3, A.3.3/Photo #: 47, 48	No signs of erosion observed



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Site Name	Hazard Name	Area Description	Figure in Appendix A / Photograph # in Appendix C	Monitoring Results
Kidney Pond	KID_SO_07	Co-mingled metals and PHC impacts excavated and covered with granular fill	Figure #: A.5, A.5.2/Photo #: 52	Evidence of overland water flow
	KID_SO_10	PHC impacts excavated and covered with granular fill	Figure #: A.5, A.5.2/Photo #: n/a	Evidence that ponded water was previously present at this location was observed. However, location was dry at the time of inspection.
	KID_SO_11	Co-mingled metals and PHC impacts excavated and covered with granular fill	Figure #: A.5, A.5.2/Photo #: n/a	Evidence of overland water flow
	KID_WR_01	Waste rock excavated and area covered with granular fill	Figure #: A.5, A.5.2/Photo #: 53, 54	Evidence of overland water flow and staining observed
Treacy	TRE_SO_01	Metals impacts excavated and partially covered with granular fill and armour stone	Figure #: A.8, A.8.1/Photo #: 59, 60	No signs of erosion observed
	TRE_SO_02	PHC impacts excavated and partially covered with granular fill and local material	Figure #: A.8, A.8.1/Photo #: n/a	No signs of erosion observed
	East Trench	Trench backfilled with granular fill	Figure #: A.8, A.8.1/Photo #: 58	No signs of erosion observed
	West Trench	Trench backfilled with granular fill	Figure #: A.8, A.8.1/Photo #: 61, 62	No signs of erosion observed



4.2.2 Mine Opening Monitoring

Closures of mine openings identified for the Year 6 LTM were visually assessed for settlement, erosion, and structural stability (e.g., deformation and cracking), where applicable. Observations related to visual assessment sites defined in the Phase I LTM (Stantec, 2018a) and outlined in Table B.1 of Appendix B, inspection reports are found in Appendix D below, and visual results are summarized in Table 4.2.

Table 4.2 Summary of Mine Opening Monitoring Results

Site Name	Hazard Name	Area Description	Figure in Appendix A / Photograph # in Appendix C	Monitoring Results
Burnt Island	Mine Shaft	The shaft was closed with a polyurethane foam plug, reinforced concrete cap and covered with granular fill	Figure #: A.2, A.2.2 Photo #: 5	Small depression observed southwest of the shaft
	Portal	The portal opening and mine tunnel were closed with granular fill	Figure #: A.2, A.2.3 Photo #: 3, 4	Deep pockets noted at top of backfilled area. Estimated > 0.3m deep x 1.5 m wide
Kidney Pond	Portal	The portal opening and mine tunnel were closed with granular fill	Figure #: A.5, A.5.2 Photo #:51	Evidence of overland water flow (rills) and some settling observed
West Bay	Open Pit	The pit was barricaded with a perimeter fence	Figure #: A.10, A.10.1 Photo #: 66, 67, 68	Some large openings under the fence were observed during the 2024 site visits. The openings provide access to the open pit to both animals and humans

4.2.3 Moderate Risk Waste Rock Left in Place Monitoring

Moderate risk waste rock left in place was visually assessed. No visible signs of ARD related impacts were observed. Observations related to visual assessment sites defined in the Phase I LTM (Stantec, 2018a) and outlined in Table B.1 of Appendix B, inspection reports are found in Appendix D below, and visual results are summarized in Table 4.3.



Table 4.3 Summary of Results - Moderate Risk Waste Rock Left in Place Monitoring

Site Name	Hazard Name	Area Description	Figure in Appendix A/ Photograph ID in Appendix C	Monitoring Results
Burnt Island	BUR_WR_01	Waste rock resulting from trenching near the Old Mill Area	Figure #: A.2.4 Photo #: 10	No signs of ARD- related impacts were identified
Kidney Pond	KID_WR_01	Waste rock near Portal Area excavated and area covered with granular fill	Figure #: A.5, A.5.2 Photo #: 53, 54, 70	Minor rust-coloured staining observed
	KID_WR_03	Scattered waste rock near Portal Area	Figure #: A.5, A.5.2 Photo #: 55	No signs of ARD- related impacts were identified
West Bay	WES_WR_01	East waste rock pile south of open pit	Figure #: A.10, A.10.1 Photo #: 64	No signs of ARD- related impacts were identified
	WES_WR_02	West waste rock pile south of open pit	Figure #: A.10, A.10.1 Photo #: 65	No signs of ARD- related impacts were identified

Minor rust-coloured staining was observed at the Kidney Pond location KID_WR_01. However, impacts associated with the observed staining were not identified in the downgradient surface water sampling location, SNP2016-11d (as discussed in Section 4.4.3, below). It should be noted that concentrations of aluminum and iron were reported above the applied guidelines in the surface water sample collected at SNP2016-11d during the August 2024 sampling event. However, as discussed in Section 4.4.3 below, these exceedances are likely attributable to an elevated TSS concentration in the collected sample.

4.3 TSCA Performance

The TSCA performance was monitored during four separate sampling events that occurred monthly during open water season, as interpreted from the WL (MVLWB, 2017) including June 12 to 14, July 10, 11, 16, and 20, August 20 to 22, and September 11 and 12 of 2024.

4.3.1 Visual Inspection

Visual inspections of the TSCA were completed monthly during the 2024 Year 6 LTM program in June, July, August, and September by K'alo-Stantec personnel. During these inspections, some settling and erosion was observed. A comprehensive account of these issues is described in the GSI provided under separate cover (K'alo-Stantec, 2024) and provided in Appendix G. Additional issues were observed during the September 2024 visual inspection, including several animal burrows of various sizes, ranging from small rodents to bear burrows and exposed liner. The issues observed were documented with photographs and are presented in photographs numbered 25, and 27 to 32, in Appendix C.



4.3.2 Thermistors

Data was downloaded from the two thermistors, VT1 and VT2 by K'alo-Stantec on July 20, August 22, and September 11, 2024. An attempt was made to download data on June 14, July 11, and July 16, 2024; however, data downloads were not successful on these dates due to software and hardware issues. During the July 2024 download attempts, the wired connections were checked, the VT1 battery pack was reconnected to the instrument and batteries were replaced, and battery life in VT2 was checked and found to be at 90%. The batteries had been previously replaced on September 4, 2020. K'alo-Stantec automation specialists were consulted and the download and wiring issues were fixed. As a result of the repairs, data was able to be downloaded during the August and September site visits.

Downloaded data from VT2 spanned from September 14, 2018 to September 11, 2024 and data from VT1 spanned from September 14, 2018 to September 18, 2022 and July 16 to September 11, 2024. The data gap in VT1 could be attributed to a loose wire connection, possibly caused by animal interaction with the instrument casing. Annual thermistor data collected from VT1 and VT2 are presented in Figure 4.1 to Figure 4.5 and Figure 4.6 to Figure 4.11 respectively. The locations of the thermistors are depicted on Figure A.3.1 in Appendix A.

The thermistor profiles indicate an active zone below approximately 4 mbgs. The depth of the active zone appears to have remain relatively constant over the installation period of the VT2. Assuming the active zone has also remained constant in the area of VT1, the data recorded in 2024 appears to be biased high (Figure 4.5). This may indicate that the thermistor became damaged in 2022 when the instrument ceased recording data due to a wire connectivity issue.

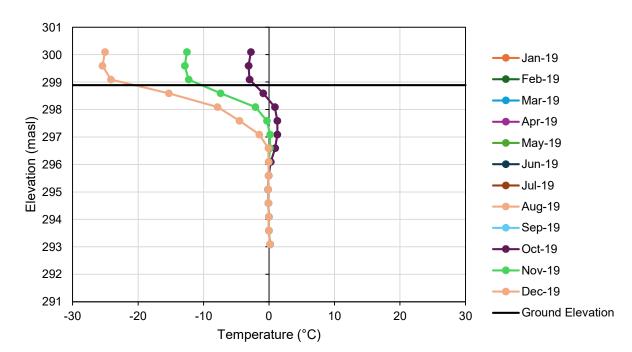


Figure 4.1 VT1-2019 Monthly Average Temperature Profiles



Figure 4.2 VT1-2020 Monthly Average Temperature Profiles

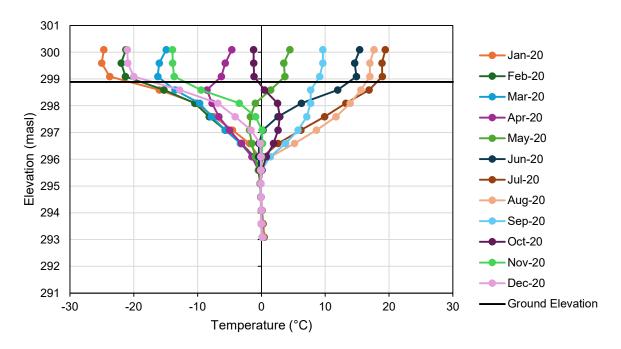


Figure 4.3 VT1-2021 Monthly Average Temperature Profiles

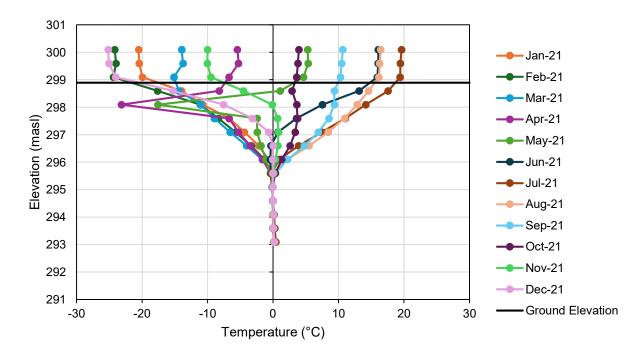




Figure 4.4 VT1-2022 Monthly Average Temperature Profiles

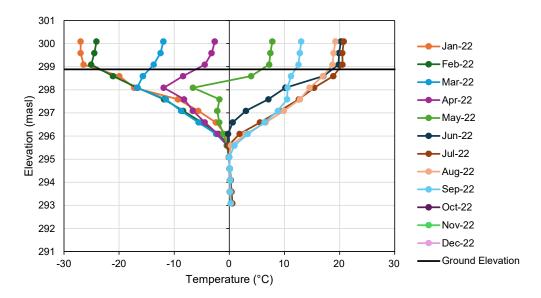


Figure 4.5 VT1-2024 Monthly Average Temperature Profiles

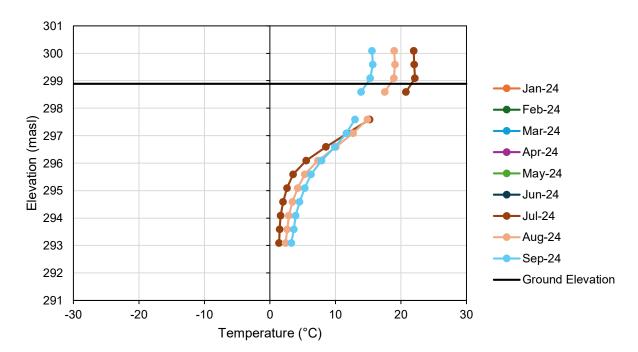




Figure 4.6 VT2-2019 Monthly Average Temperature Profiles

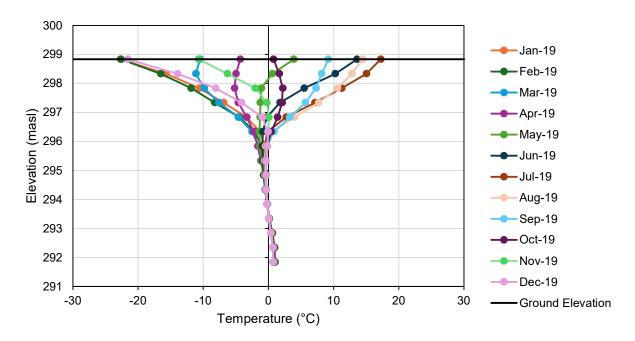


Figure 4.7 VT2-2020 Monthly Average Temperature Profiles

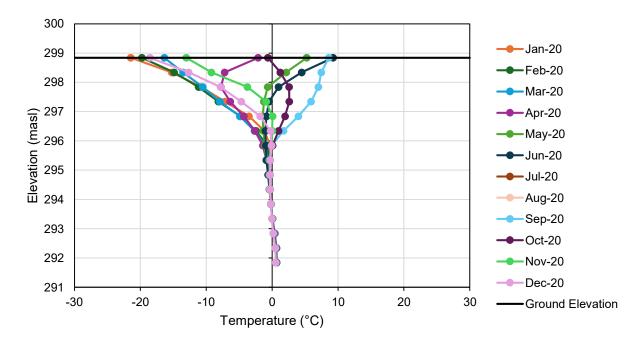




Figure 4.8 VT2-2021 Monthly Average Temperature Profiles

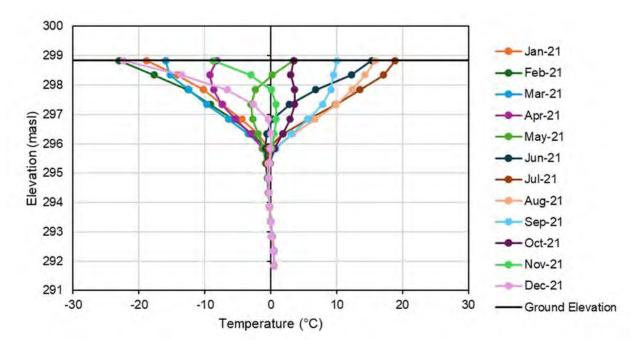


Figure 4.9 VT2-2022 Monthly Average Temperature Profiles

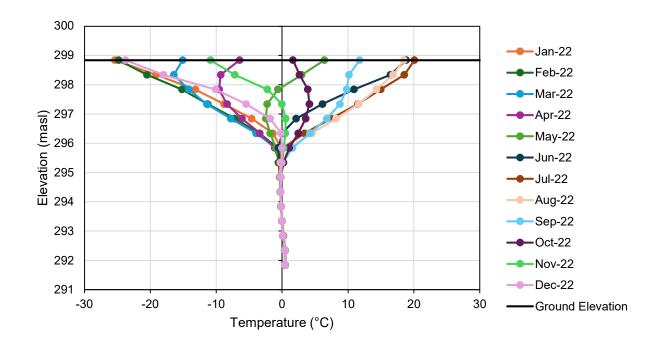




Figure 4.10 VT2-2023 Monthly Average Temperature Profiles

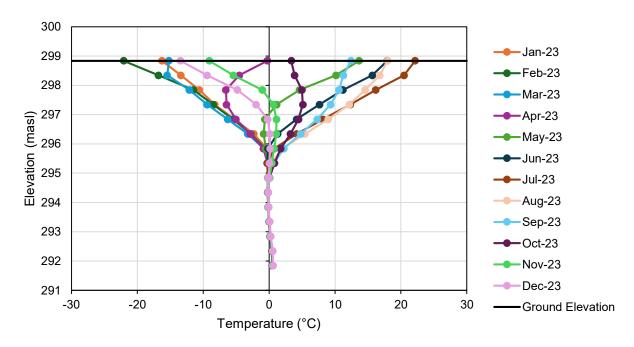
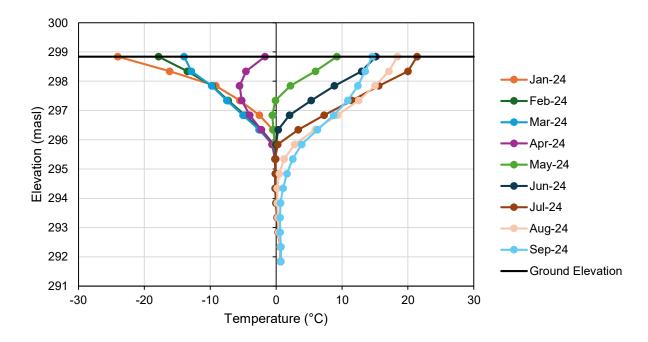


Figure 4.11 VT2-2024 Monthly Average Temperature Profiles





4.3.3 Vibrating Wire Piezometers

Data was downloaded from the six VWPs installed at the three locations, VB1, VB2, and VB3, by K'alo-Stantec on July 20, August 22, and September 11, 2024. An attempt had been made to download data on June 14, July 11, and July 16, 2024; however, data downloads were not successful on these dates due to software and hardware issues. During the July 2024 instrument inspections, the wired connections were checked, and battery life was checked and found to be at 90%. These batteries had been previously replaced on September 4, 2020 by K'alo-Stantec field personnel. Also in July 2024, K'alo-Stantec automation specialists were consulted from the Site and the hardware and software issues were fixed.

Downloaded data spanned from September 14, 2018 to September 11, 2024 for the VWPs except for the top piezometer in VB2 (serial number VW52117). The data log in this piezometer was missing values from September 4, 2020 to July 16, 2024, indicating a wire connectivity issue that arose during the previous battery replacement.

Piezometer readings are reported as B units and are converted to pressure values and then to total head as reported in the Gotechnical Inspection (K'alo-Stantec, 2024) provided in Appendix G.

The total head values were plotted over duration of data collection for each VWP pair, as presented in Figure 4.12 (VB1), Figure 4.13 (VB2), and Figure 4.14 (VB3). The locations of the VWBs are depicted on Figure A.3.1 in Appendix A.

At each location, the top piezometer records pore pressures in the tailings, the bottom piezometer measures pore pressures near the bedrock or native soil. In general, the top and bottom piezometers follow similar trends over the recorded period.

Figure 4.12 Piezometric data (total head elevation) for the VB1 location (2018 – 2024)

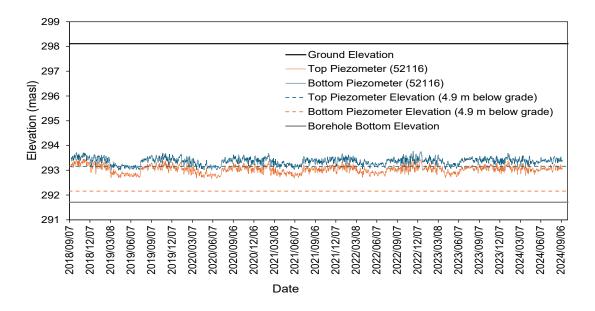




Figure 4.13 Piezometric data (total head elevation) for the VB2 location (2018 – 2024)

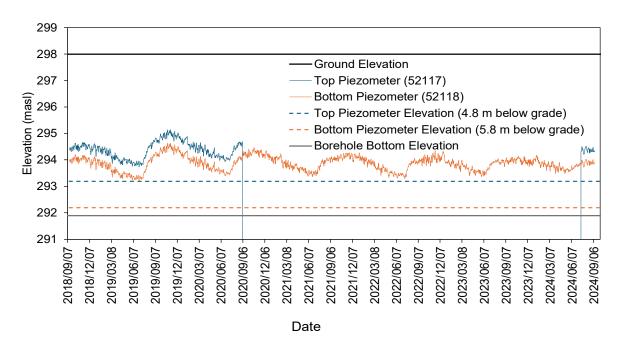
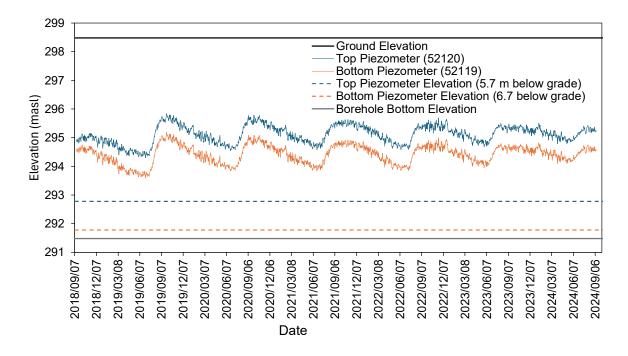


Figure 4.14 Piezometric data (total head elevation) for the VB3 location (2018 – 2024)





4.4 SNP

The SNP was executed during four separate sampling events that occurred monthly during open water season as interpreted from the MVLWB WL (MVLWB, 2017). Sampling dates included June 12 to 14, July 10, 11, 16, and 20, August 20 to 22, and September 11 and 12, 2024.

4.4.1 Groundwater Monitoring

The SNP includes monitoring wells MW3 (SNP 2016-7a), MW4 (SNP 2016-7b), MW5 (SNP-2016-7c), and MW6 (SNP 2016-7d). However, for continuity of discussion, and as discussed in Section 3.4.1, measurement and results from MW1 and MW2 are also discussed here. Sampling locations are depicted on Figure A.3.1 in Appendix A.

On June 12, 2024, a blockage in MW5 was observed during the initial field event. This blockage was caused by lodged bailer inside the well pipe approximately 0.75 m below the top of pipe. The bailer was removed on June 14, 2024, allowing K'alo-Stantec to measure the water level and sample groundwater. Monitoring well MW5 was measured to have low water levels and recovery during the four monitoring events in 2024. This resulted in the collection of partial samples in June, August, and September 2024, prioritizing total metals and general chemistry analyses. No sample was collected from MW5 in July 2024.

The blockage noted in MW1 during Years 2 and 3 of the LTM was not observed in Years 4, 5, or 6. A blockage was noted in MW2 during Years 4 and 5 of the LTM. Based on groundwater depth measurements (Table 4.5) taken in MW2 during Year 6 of the LTM, it appears that the blockage is no longer present.

Measurements of the well stick up and groundwater depths taken during the four monitoring sessions of 2024 are listed in Table 4.4.

Table 4.4 Year 6 LTM Monitoring Well Measurements

Monitoring	Surface Elevation (masl)	Monitoring Well Pipe Stickup (m)	Depth of Well (mbp)	Groundwater Depth (mbp)				
Well ID				June	July	August	September	
MW1	298.73	0.91	6.15	5.41	5.14	5.07	5.04	
MW2	298.96	0.93	8.08	5.82	5.56	5.01	5.10	
MW3 (SNP 2016-7a)	292.41	0.78	7.89	2.21	2.26	2.37	2.35	
MW4 (SNP 2016-7b)	294.52	0.55	4.62	2.43	2.97	3.22	2.60	
MW5 (SNP 2016-7c)	296.58	0.81	5.51	4.96	5.28	5.32	5.39	
MW6 (SNP 2016-7d)	295.45	0.67	6.16	2.40	2.51	2.55	2.70	

Note:

mbp = metres below top of pipe



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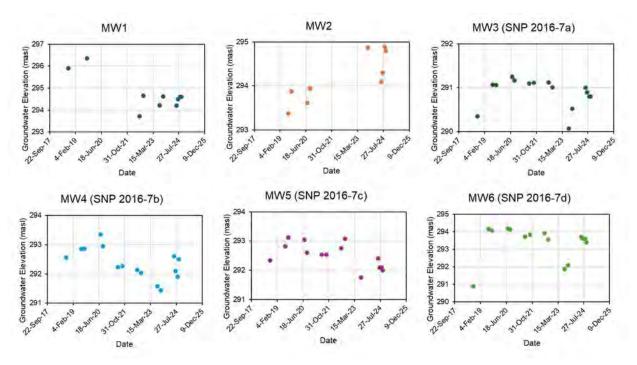
Groundwater elevations measured in the six monitoring wells during the Year 6 LTM Program and historical groundwater elevation values are presented in Table 4.5 and plotted on Figure 4.15. The groundwater levels in the six monitoring wells have remained, for the majority of sampling events, within a 2 cm elevation, with the exception of the starting elevation in MW6 in 2019. Notable on the plots depicted on Figure 4.15 is the lower elevation measured in 2023, which was a particularly dry year in the area.

Table 4.5 Groundwater Elevations 2018 - 2024

	Groundwater Elevations (masl)							
Monitoring Date	MW1	MW2	MW3 (SNP 2016- 7a)	MW4 (SNP 2016- 7b)	MW5 (SNP 2016- 7c)	MW6 (SNP 2016- 7d)		
September 16, 2018	295.9	Dry	290.35	292.56	292.34	290.9		
July 8 - 10, 2019	Blockage	293.37	291.07	292.85	292.82	294.15		
September 10 -11, 2019	296.35	293.87	291.06	292.86	293.12	294.07		
July 17, 2020	Blockage	293.61	291.25	293.35	293.05	294.16		
September 3, 2020	Blockage	293.94	291.17	292.95	292.6	294.12		
June 18, 2021	Blockage	Blockage	291.1	292.23	292.54	293.71		
September 15, 2021	Blockage	Blockage	291.11	292.27	292.54	293.83		
June 29, 2022	293.72	Blockage	291.12	292.14	292.76	293.9		
September 7, 2022	294.65	Blockage	291.01	292.03	293.08	293.54		
July 18 – 20, 2023	294.22	Blockage	290.07	291.58	291.75	291.88		
September 29, 2023	294.62	294.871	290.52	291.44	Dry	292.09		
June 12, 2024	294.2	294.1	291.0	292.6	292.4	293.7		
July 10, 2024	294.5	294.3	290.9	292.1	292.1	293.6		
August 20, 2024	294.6	294.9	290.8	291.9	292.1	293.6		
September 11, 2024	294.6	294.8	290.8	292.5	292.0	293.4		



Figure 4.15 Historical trends in groundwater elevation between 2018 - 2024 in six monitoring wells



4.4.2 Groundwater Sampling

In situ field parameter and analytical results are provided in Table B.2 and Table B.3, Appendix B, respectively, and copies of laboratory COAs are included in Appendix F.

Parameters that exceeded applied guidelines (CCME FAL and/or FIGQG) are listed in Table 4.6 with red highlights representing those parameters that were reported above applied guidelines in both Years 5 and 6 of the LTM.

Those parameters that were measured above applied guidelines in the SNP 2016-7 samples were plotted with historical values and compared to applied guidelines and are presented in Figure 4.16. These figures allow for the comparison of both the scale of exceedances and the general trends of elevated parameters over the duration of the LTM program to date. Results from samples collected from MW1 and MW2, located within the TSCA, are not presented on these figures. The concentrations in the samples collected from within the TSCA tended to be elevated compared to those measured in the groundwater collected outside of the TSCA, which would have prevented the observation of trends in Figure 4.16.



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Table 4.6 Groundwater Analytical Result Exceedances for Year 6 of the LTM

Sampling Station	Date	Exceedances					
MW1	12-Jun-24	ammonia, sulfate, aluminum, arsenic, iron, manganese, zinc					
	10-Jul-24	ammonia, sulfate, arsenic, iron, manganese, zinc, toluene					
	20-Aug-24	ammonia, sulfate, aluminum, arsenic, cadmium, iron, manganese, zinc, toluen					
	12-Sept-24	ammonia, sulfate, aluminum, arsenic, cadmium, iron, manganese, zinc, toluene					
MW2*	12-Jun-24	ammonia, chloride, sulfate, TDS, arsenic, cadmium, cobalt, iron, manganese, nickel, uranium, zinc					
	10-Jul-24	ammonia, chloride, sulfate, TDS, arsenic, cadmium, cobalt, iron, manganese, nickel, uranium, zinc					
	20-Aug-24	ammonia, chloride, sulfate, TDS, arsenic, cadmium, cobalt, iron, manganese, nickel, selenium, zinc					
12-Sept-		ammonia, chloride, sulfate, TDS, arsenic, cadmium, cobalt, iron, manganese, nickel, zinc					
MW3 (SNP 2016-7a)	12-Jun-24	ammonia, sulfate, arsenic, iron, manganese, uranium					
	10-Jul-24	ammonia, sulfate, arsenic, iron, manganese, uranium					
	20-Aug-24	ammonia, sulfate, arsenic, iron, manganese, uranium					
	12-Sept-24	ammonia, sulfate, arsenic, iron, manganese, uranium					
MW4	12-Jun-24	ammonia, sulfate, arsenic, iron, manganese					
(SNP 2016-7b)	10-Jul-24	ammonia, sulfate, arsenic, iron, manganese					
	20-Aug-24	ammonia, sulfate, arsenic, cadmium, copper, iron, manganese					
	12-Sept-24	sulfate, arsenic, copper, iron, manganese					
MW5 **	12-Jun-24	sulfate, arsenic, iron, manganese					
(SNP 2016-7c)	10-Jul-24	ammonia, aluminum, arsenic, iron, manganese, uranium					
	20-Aug-24	ammonia, arsenic, iron, manganese, uranium					
	12-Sept-24	aluminum, arsenic, iron, manganese, uranium					
MW6 (SNP 2016-7d)	12-Jun-24	sulfate, selenium					
	10-Jul-24	nitrate, nitrate (as N), sulfate, selenium					
	20-Aug-24	nitrate, nitrate (as N), sulfate, selenium					
	12-Sept-24	nitrate, nitrate (as N), sulfate, selenium					

Notes:

Red highlights represent parameters with concentrations that exceeded applied guidelines in Year 5 and 6 of the LTM and trigger the requirement for adaptive management as per the Phase I LTM Plan

Potential mitigative action, as outlined in the Phase I LTM Plan, includes reviewing and/or modifying the monitoring frequency and/or remedial design components, trouble-shooting TSCA performance, and completing repairs as necessary (Stantec, 2018a). Additional details of potential mitigative action are provided in the text below.



^{* -} MW2 was dry in 2023

^{** -} insufficient water for sampling in 2023

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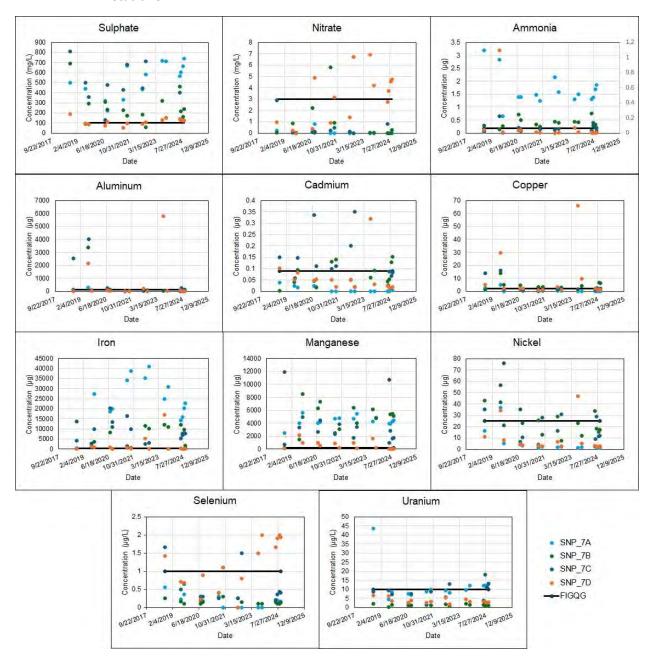
The majority of parameters remain relatively stable at the four SNP 2016-7 station, over the duration of the LTM program, albeit some are above applied guidelines. Parameters that exceed guidelines include aluminum, iron, sulphate, cadmium, copper, manganese, and nickel. Nitrate concentrations appear to be consistently elevated in samples collected at SNP 2016-7d since 2020. Both ammonia and iron concentrations are not only elevated above applied guidelines in samples collected from SNP 2016-7a, but concentrations are also elevated above those measured in the other three SNP 2016-7 stations. It was observed that reported guideline exceedances of ammonia concentrations in 2024 were attributed to the use of the lowest concentration in the generically calculated concentration range of the applied guideline in 2024 (0.173 mg/l) compared to the high-end of the calculated concentration range (190 mg/L) used in the previous year. The applied guideline for ammonia is both pH and temperature dependent.

Selenium concentrations appear to be trending upwards in samples collected from SNP 2016-7d. However, selenium concentrations were measured to be above guidelines only in one sample collected from the TSCA groundwater in 2024 (MW2 on August 20). Uranium also appears to be trending upward in samples collected from SNP 2016-7a and SNP 2016-7c. Historically, uranium concentrations had not exceeded applied guidelines in samples collected from SNP 2016-7c. Uranium concentrations were also elevated above applied guidelines in samples collected from MW2 in June and July of 2024, but not in August or September.

Potential mitigative action to address the ongoing exceedances of the applied guidelines at select monitoring wells downgradient of the TSCA (i.e., SNP2016-7a, -7b, and 7d), as outlined in the Phase I LTM Plan (Stantec, 2018a), includes reviewing and/or modifying the monitoring frequency and/or remedial design components, trouble-shooting landfill performance, and completing repairs as necessary. As outlined in the GSI provided under separate cover (K'alo-Stantec, 2024) and provided in Appendix G, geotechnical recommendations for the TSCA were recommended following the 2024 inspection. Implementation of the geotechnical recommendations and continued monitoring of the groundwater within and downgradient of the TSCA could be completed to confirm if geotechnical deficiencies at the TSCA may be impacting concentrations of metals parameters in the groundwater. The installation of a background groundwater monitoring well could also be completed to aid in the evaluation of groundwater quality at and downgradient of the TSCA, and aid in determining if ongoing exceedances are potentially related to the TSCA or potentially naturally occurring conditions.



Figure 4.16 Historical trends in parameters above applied guidelines in 2024 in SNP 2016-7 stations





4.4.3 Surface Water Monitoring and Sampling

The SNP includes surface water sampling sites from Gordon Lake in the expected receiving environment of the six historic mine sites (SNP 2016-11) and from potential surface water runoff locations on the TSCA (SNP-2016-8). Sampling locations are depicted on the following figures (Appendix A):

- Figures A.2, and A.2.4 (SNP 2016-11a)
- Figures A.3, to A.3.3 (SNP 2016-11b1 to 2016-11b4, and SNP 2016-11c
- Figures A.5 and A.5.2 (SNP 2016-11d)
- Figures A.8 and A.8.1 (SNP2016-11e)
- Figures A.10 and A.10.1 (SNP 2016-11f)

In situ field parameter and analytical results are provided in Table B.4 and Table B.5, Appendix B, respectively, and laboratory COAs are included in Appendix F.

Parameters that exceeded applied guidelines (CCME FAL) are listed in Table 4.7, with red highlights representing those parameters that were reported above applied guidelines in both Years 5 and 6 of the LTM.

Table 4.7 SNP - Surface Water Analytical Result Exceedances for Year 6 of the LTM

Sampling Station	Date	Exceedances		
SNP 2016-11d (Kidney Pond)	22-Aug-24	Aluminum, Iron		

Notes:

Red highlights represent parameters that exceeded applied guidelines in Year 5 and 6 of the LTM

In surface water samples collected during the Year 6 LTM program, only aluminum and iron concentrations were elevated above applied guidelines in SNP 2016-11d, and only for the August event. The concentrations of these parameters were plotted with historical concentrations and are presented in Figure 4.17 to assess for potential trends in concentrations over time. No trends in concentrations were observed in the data over time in either parameter. However, it was observed that both aluminum and iron exceed guidelines in the same sampling event, which may indicate the presence of sediment in the sample.

Samples SNP 2016-8a and SNP 2016-8b were not collected over the six years of LTM as no surface water drainage has been observed at these stations.

Analysis of total suspended solids (TSS) is used to assess the potential erosion of the backfilled remedial excavation areas. A summary of TSS results from Years 1 through 6 are presented Table 4.8. The majority of samples are below LODs. The highest TSS values were observed in SNP 2016-11d, with peak values at this station generally corresponding to elevated measurements of aluminum and iron (Figure 4.17). Overall, a lower TSS concentrations were observed across the monitored locations, in 2023 and 2024, potentially indicating that erosion of backfilled areas is not of concern.



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Table 4.8 Summary Surface Water LTM Total Suspended Solids Results

	Total Suspended Solid Concentrations (mg/L)									
	Burnt Island		Camlaren			Zenith Island	Kidney Pond	Treacy	West Bay	
Sampling Point	SNP 2016-11a	SNP 2016-11b1	SNP 2016-11b2	SNP 2016-11b3	SNP 2016-11b4	SNP 2016-11c	SNP 2016-11d	SNP 2016-11e	SNP 2016-11f	
July 2019	10	160	5.3	4.7	2.0	11.0	5.3	<1.0	1.3	
September 2019	1.3	7.3	1.3	2.0	1.3	2.0	10	1.3	2.7	
July 2020	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	8.9	<1.0	<1.0	
September 2020	7.3	<1.0	<1.0	<1.0	<1.0	<1.0	2.3	1.4	1.4	
June 2021	12.0	6.0	12.0	26.0	8.0	<3	12.0	6.0	10.0	
September 2021	10.0	6.0	10.0	10.0	6.0	14.0	150.0	18.0	12.0	
June 2022	6.0	<3.0	<3.0	<3.0	<3.0	<3.0	38	<3.0	<3.0	
September 2022	8.0	<3.0	<3.0	<3.0	<3.0	<3.0	6.0	<3.0	6.0	
July 2023	1	<0.99	<1.0	3.1	<1.0	<1.0	210	1.4	<1.0	
September 2023	<0.96	<1.0	<0.99	5.9	<0.96	<1.0	1.3	1.8	<1.0	
June 2024	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	1.1	<1.0	<1.0	
July 2024	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
August 2024	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11.1	<1.0	<1.0	
September 2024	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0	<1.0	<1.0	

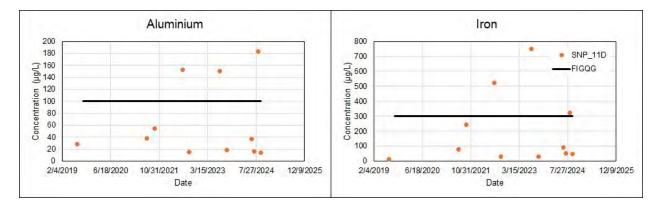
Notes:

mg/L = milligrams per litre

grey values are below the laboratory reported detection limit



Figure 4.17 Historical trends in parameters above applied guidelines in 2024 in SNP 2016-11 stations



4.4.4 QA/QC

The purpose of the QA/QC program implemented as part of the groundwater and surface water sampling program was to assess the reliability and reproducibility of the analytical data. The QA/QC review consisted of evaluating sample collection and handling methods, sample hold times, general laboratory comments, and field and laboratory duplicate results.

A summary of the QA/QC program is provided in Table 4.9, below.

Table 4.9 Summary of QA/QC

QA/QC Parameter	Comment
Collection and Handling	Samples were collected in appropriate containers and had appropriate preservation measures. Sample temperatures for organic analyses were below 10°C, with the exception for samples collected on August 20, 2024 which were marginally above at 10.9 °C
	Sample hold times exceeded for nitrates, nitrites, and orthophosphates for most surface water and groundwater samples. In general, samples were submitted to the laboratory depot in Yellowknife, NT the day following collection. As such, with respect to nitrate, nitrite, and orthophosphate, the qualifier is related to the time required to transport and ship the samples from the depot to the laboratory in Burnaby, British Columbia (BC), which is typically longer than the recommended hold time of three days. CCME has recognized the difficulty in sampling remote sites and has indicated that "Three day hold times may not be practically achievable, particularly for samples from remote locations. Laboratories should commence analysis as soon as possible but within 48 hours of receipt. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised." (CCME, 2016). Further, a study reported no loss over a 14-day period at neutral or basic pH, and at 24° C (Cai, Zhang, & Yang, 2001). As such, the hold time exceedances are not expected to have affected the interpretation of analytical results in surface water.
Laboratory QA/QC	Matrix spikes, method blanks, replicates, referenced criteria, and surrogate recoveries were within acceptable ranges.
Field QC	Field duplicate samples were within the acceptable criteria Field blanks were below laboratory LODs for measured parameters
	Trip blanks were below laboratory LODs for measured parameters



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Based on the above results, the analytical data for the water samples analyzed are considered reliable and to have an acceptable level of reproducibility.



5 Summary and Conclusions

The Year 6 LTM field program was completed in June, July, August and September of 2024.

Areas visually inspected by the geotechnical engineering team were generally in good condition with the exception of the following locations:

- Burnt Island Portal: deep depressions at top of backfilled area
- Burnt Island Shaft: small depression observed on the southwest end of the shaft
- Camlaren TSCA and various monitoring sites around the TSCA indicated animal burrowing in the Summer and Fall of 2024
- Camlaren minor, fresh erosion was observed in the form of overland flow impacts
- Kidney Pond Portal: Rills and evidence of settling observed on south side of slope
- West Bay Open Pit: fence was observed to be falling over in spots, and gaps under the fence
 are up to 1 m high in areas. This currently allows access to both animals and humans to the open
 pit

During the data downloads from thermistors and VWPs in July 2024, thermistor VT2 and VWP VB2 were reactivated. Thermistor VT2 had not been logging data since September 18, 2022 and VWP VB2 had not been logging data since September 4, 2020. Data collected from VT2 after it was reactivated in July 2024 appears to be biased high, indicating that the thermistor may not be properly connected after the reactivation. Data collected from VB after it was reactivated in July 2024 appears to be continuing the same trend that was observed prior to deactivation. However, there are too few data points to assess this thoroughly at this point.

The results of the SNP groundwater and surface water monitoring indicated generally consistent results to previous LTM programs. However, ammonia and uranium concentrations in groundwater at five and two of six locations were observed to be above applied guidelines; additionally, these exceedances were at locations where these parameters did not previously exceed guidelines. The analytical results collected in 2024 were plotted alongside historical data for those parameters that exceeded applied guidelines, and it was observed that ammonia has remained relatively consistent over the duration of the LTM program. It was observed that reported guideline exceedances of ammonia concentrations in 2024 were attributed to the use of the lowest concentration in the generically calculated concentration range of the applied guideline in 2024 (0.173 mg/l) compared to the high-end of the calculated concentration range (190 mg/L) used in the previous year. It was also observed that uranium concentrations appear to be trending upward over time in SNP 2016-7a and SNP 2016-7c, and selenium concentrations appear to be trending upward over time in SNP 2016-7d.

Surface water results at SNP stations were generally consistent with previous LTM Years. It was identified that applied guideline exceedances in aluminum and iron observed in 2024 and in previous years of the LTM program are potentially related to elevated TSS measurements and are likely a result of sediment in the surface water samples.



6 Recommendations

Based on the results of Year 6 of the LTM Program, K'alo-Stantec recommends the following:

- Visual inspections conducted in backfilled/covered areas, former mine openings, and waste rock indicated that the following areas require further observation or repair:
 - Burnt Island Portal: deep depressions at top of backfilled area should be closely monitored
 - Burnt Island Shaft: small depression observed on the southwest end of the shaft should be monitored for changes
 - Camlaren TSCA: animal burrowing that occurred in the Summer and Fall of 2024 should be repaired and animal deterrents should be installed where applicable/practical. For the minor erosion, regrading to prevent concentrated overland flow is recommended
 - Kidney Pond Portal: Rills and evidence of settling observed on south side of slope, and should be closely monitored
 - West Bay Open Pit: the gaps under the fence should be blocked off and the tipped fence post should be repaired
- Inspection of the connectivity of the wires following the repair of thermistor VT1, which was
 completed in 2024, is recommended as this is the most likely cause of the offset thermistor
 readings. The replacement of a single node within the thermistor string is not recommended at
 this time as this may off set the depth of the node and result in data that is not comparable to
 historical values.
- Conducting statistical analysis using Mann-Kendall analysis to look for trends in the current and
 historical metal concentrations and other measured parameters from the SNP stations to monitor
 trends in measurements. measurements which may help identify erosional or potential
 contaminant leaching issues. Additionally, plotting current and historical metal concentrations and
 other measured parameters from the SNP stations to examine potential correlations between
 individual parameters.
- Calculating applied guidelines for surface water concentrations of for ammonia, nitrate, nitrite, aluminum, antimony, arsenic, cadmium, chloride, chromium, copper, iron, lead, manganese, molybdenum, nickel, selenium, silver, thallium, uranium, and zinc, which are dependent on *in situ* values (including pH, temperature, hardness, and dissolved organic carbon). The calculations should utilize the field measurements for each individual sampling location when comparing the data to the applicable guidelines for the above-mentioned metals parameters.
- Developing a Phase II LTM program for subsequent monitoring years based on the PAR and data collected and visual observations from Year 1 through 6 of the Phase I LTM program.



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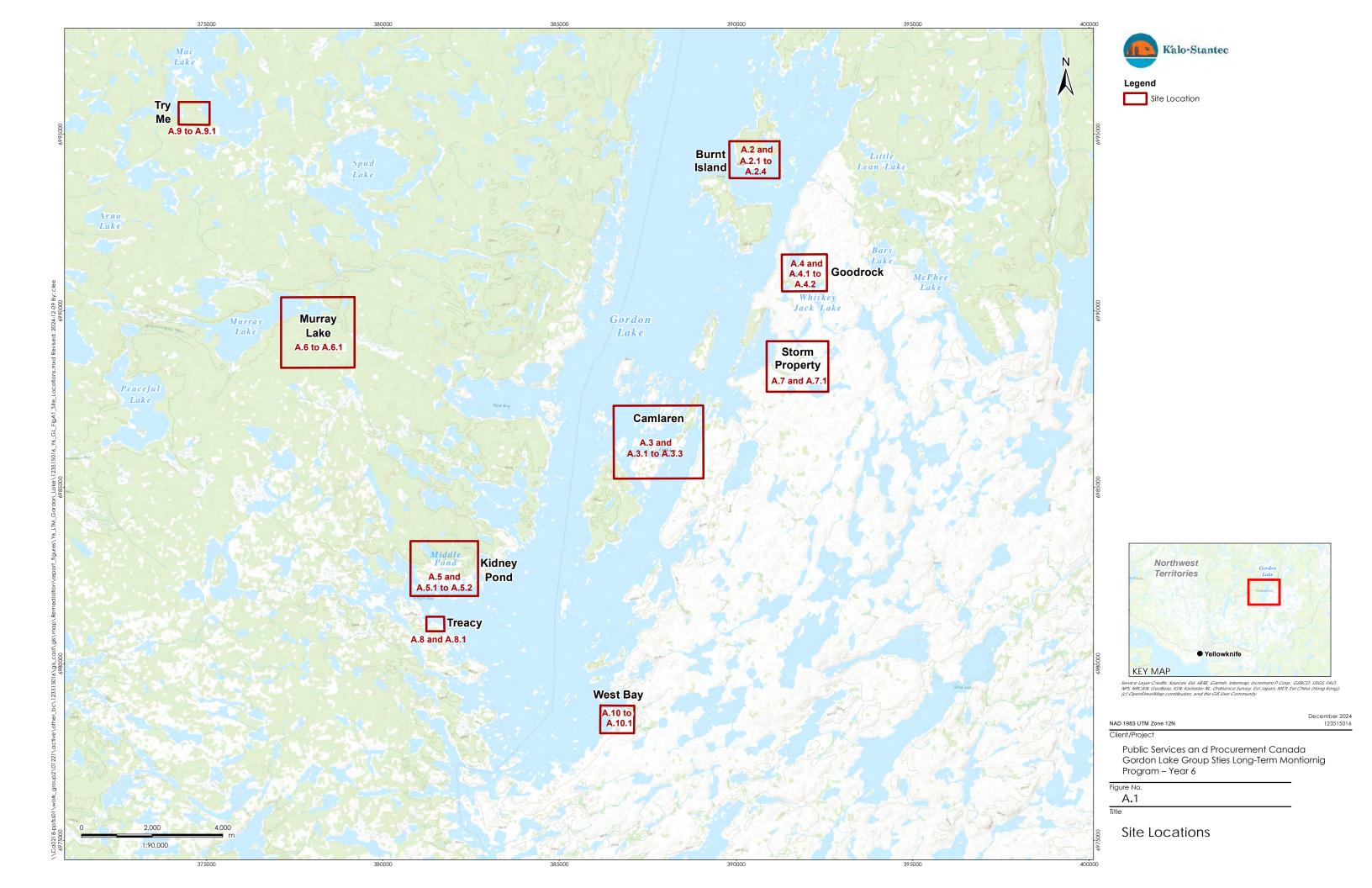


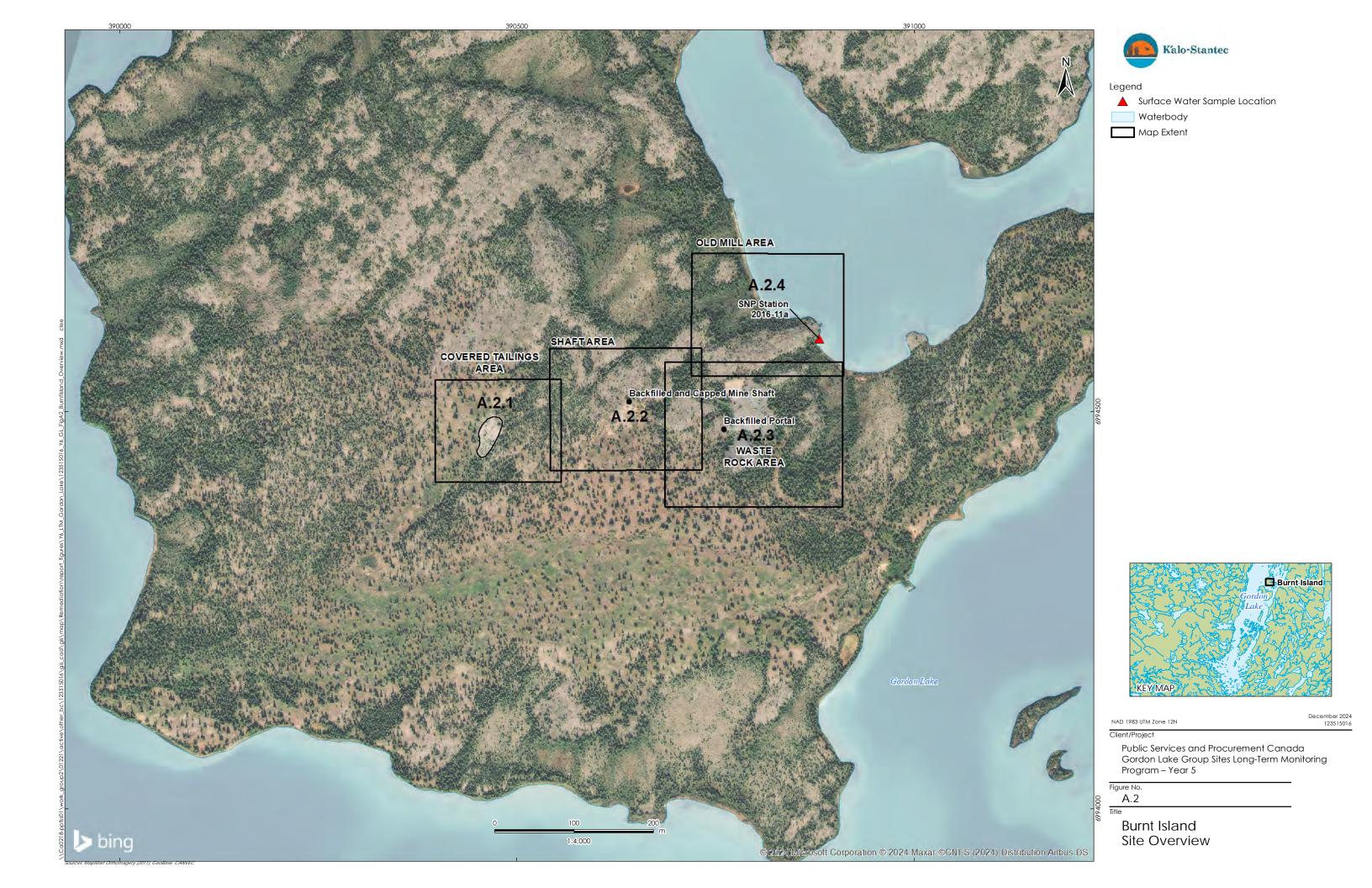
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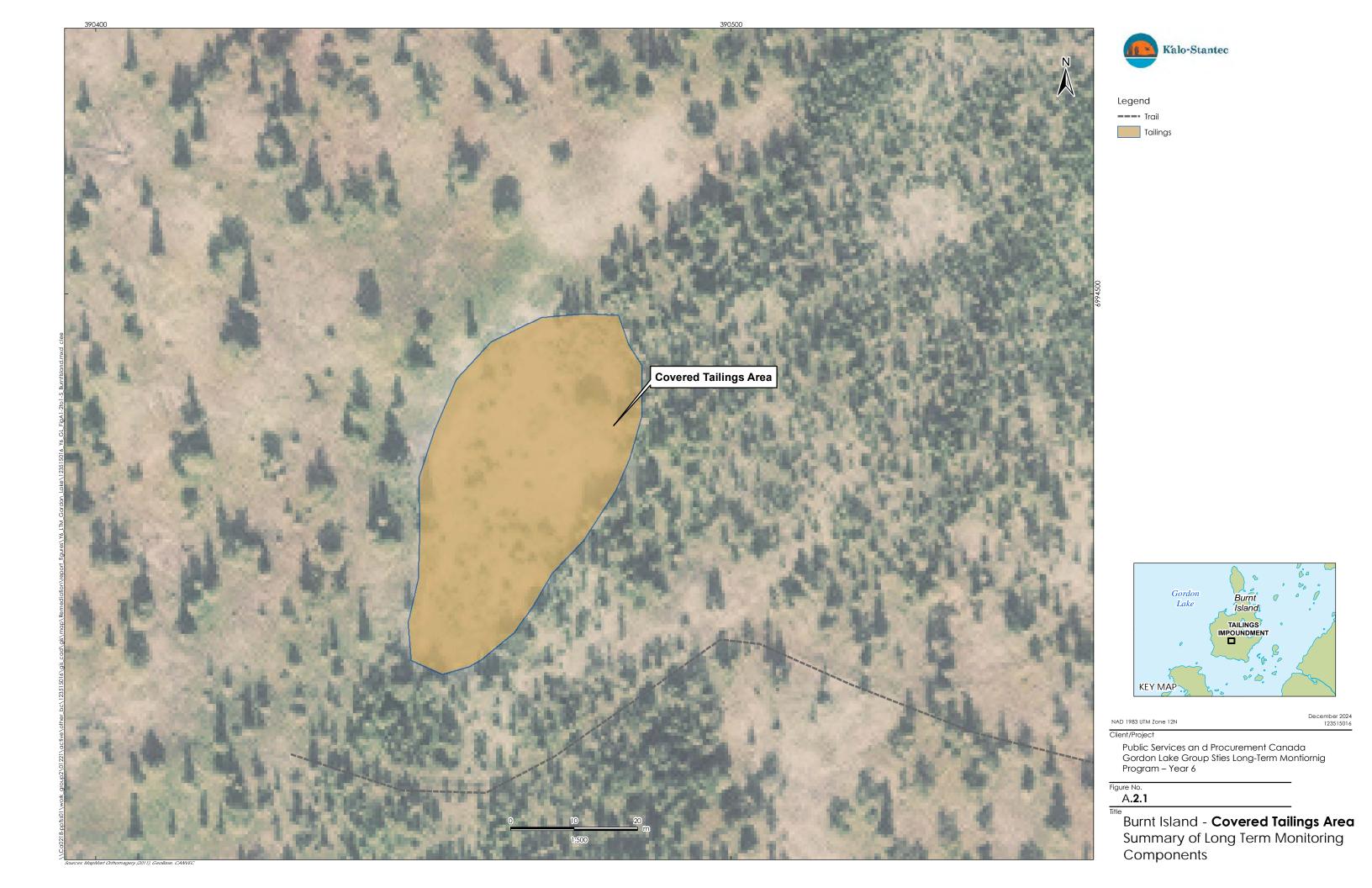


Appendix A Figures













Legend

Mine Opening



NAD 1983 UTM Zone 12N

Client/Project

Public Services an d Procurement Canada Gordon Lake Group Sties Long-Term Montiornig Program – Year 6

Figure No.

Title

Burnt Island - Shaft Area
Summary of Long Term Monitoring
Components







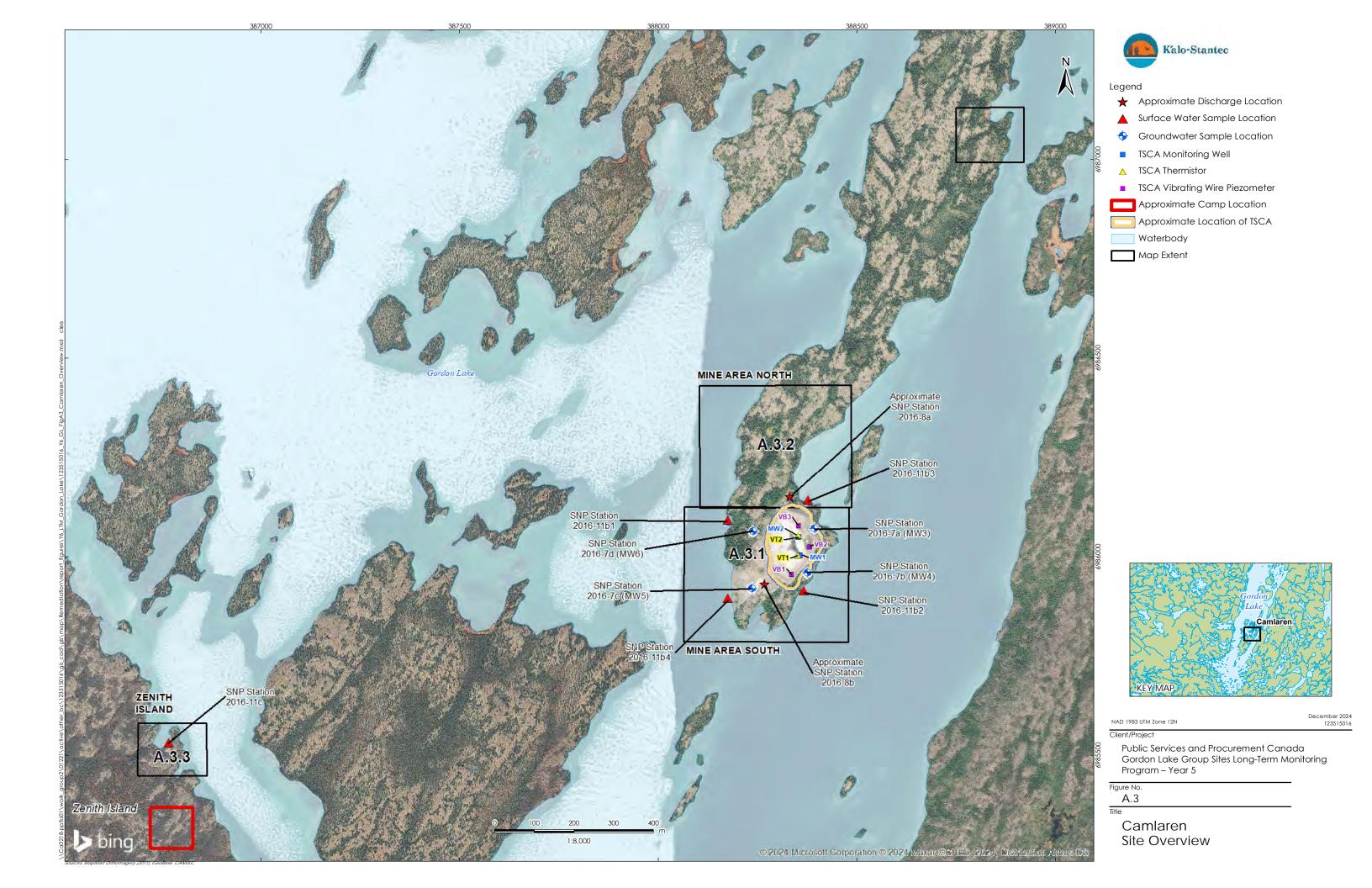
TTT Moderately Risked Waste Rock Trench

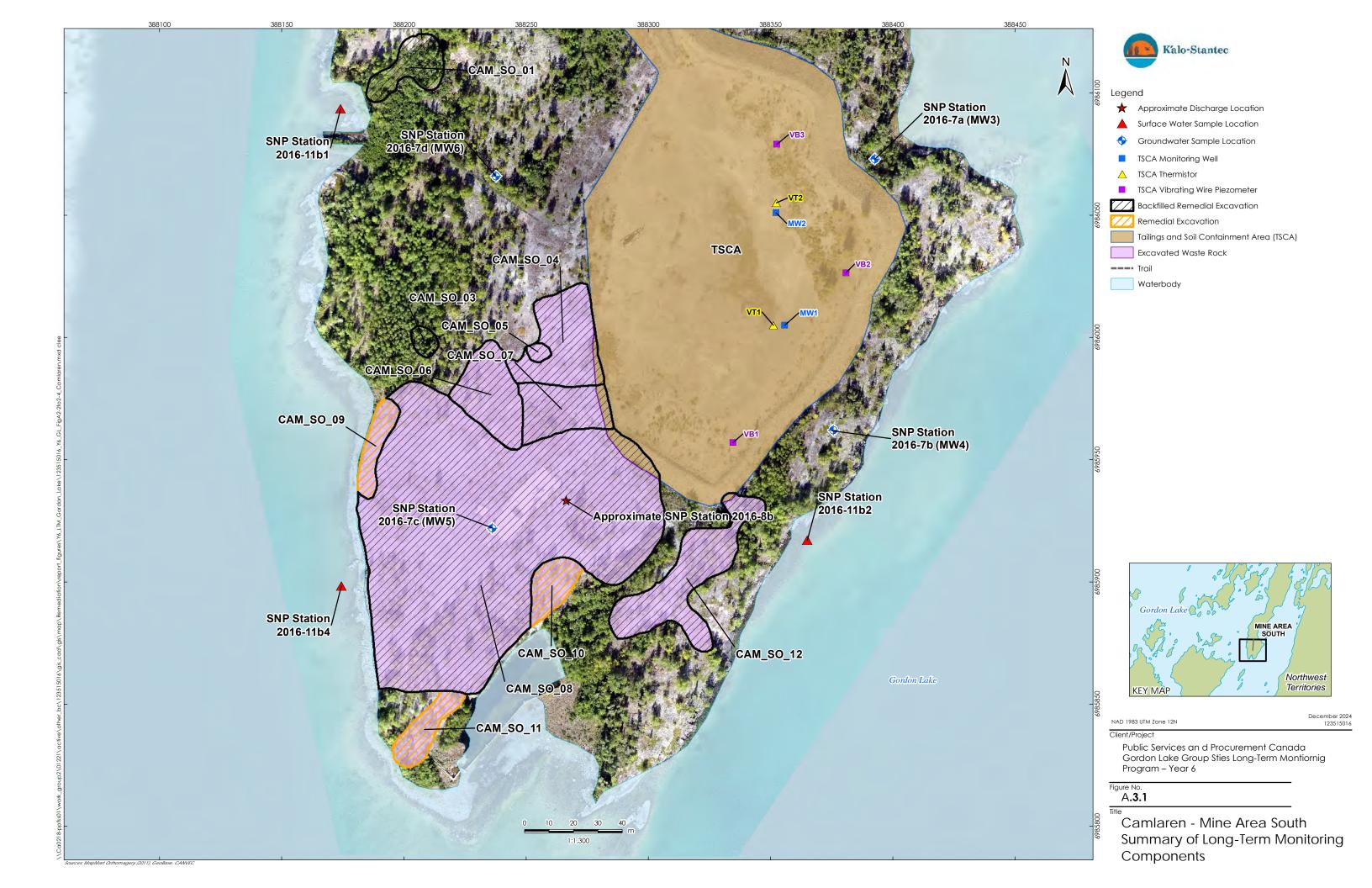
Moderate Risk Impacting Material



Public Services an d Procurement Canada Gordon Lake Group Sties Long-Term Montiornig Program – Year 6

Burnt Island - Old Mill Area Summary of Long Term Monitoring Components



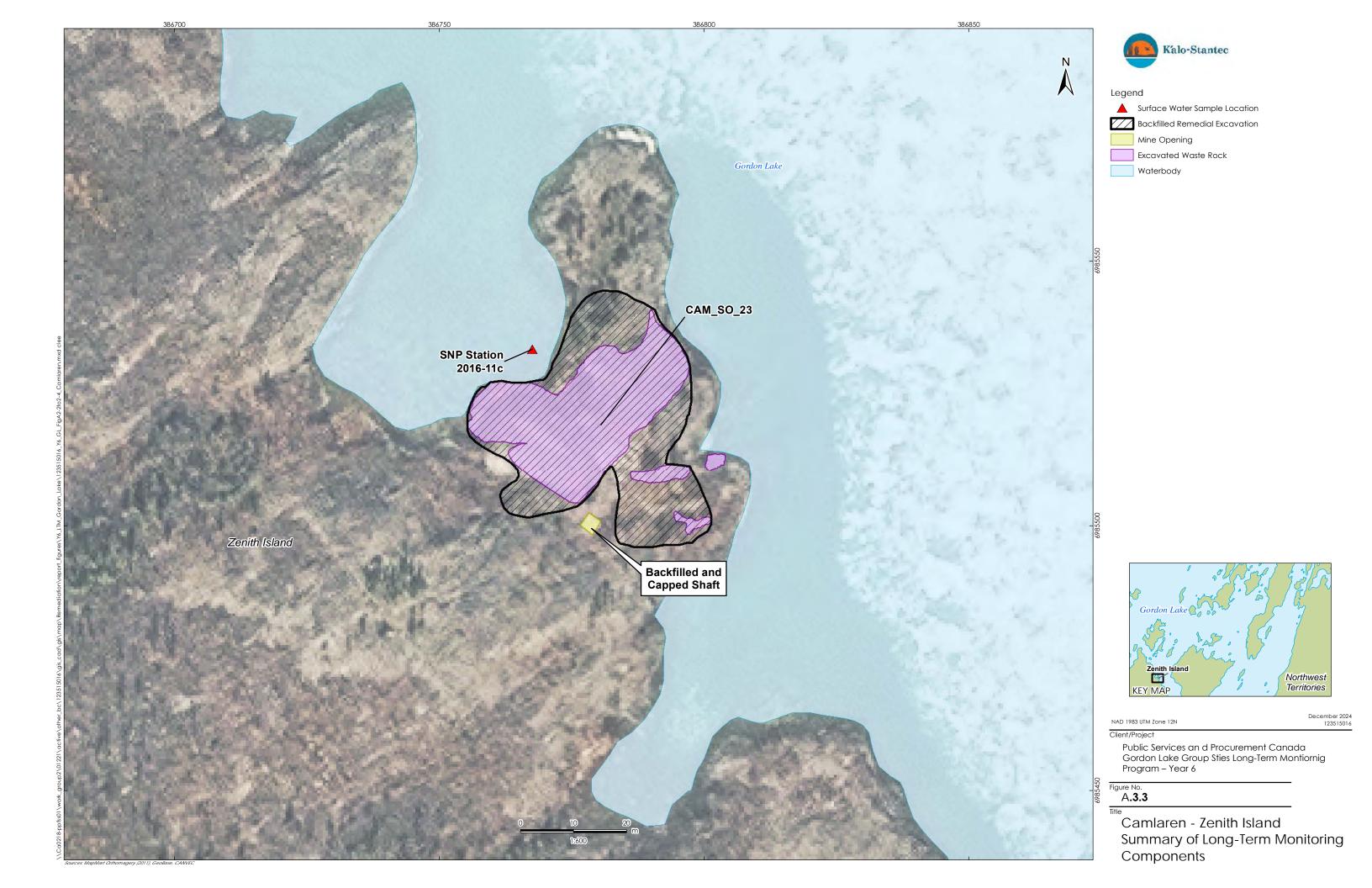


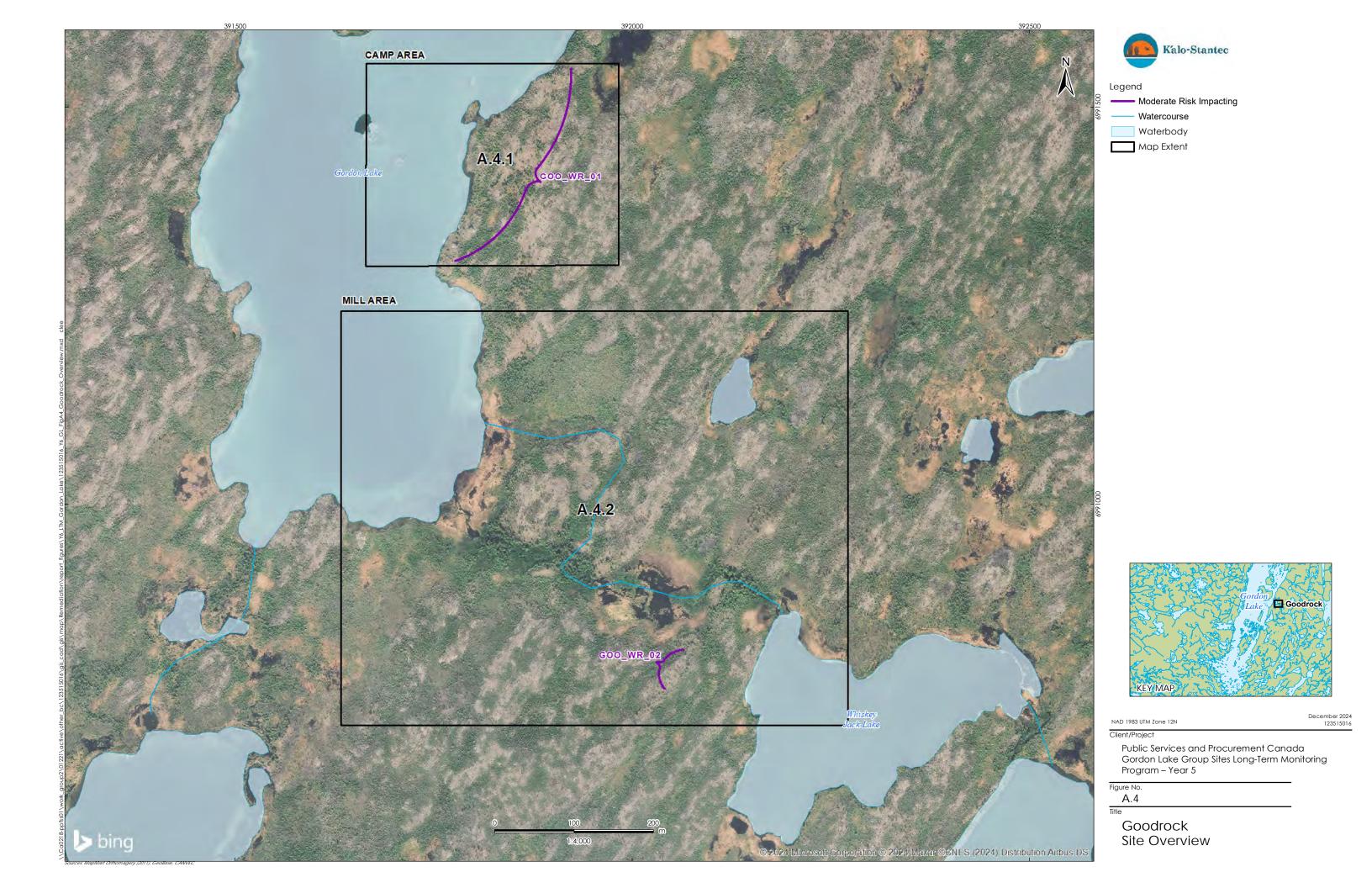


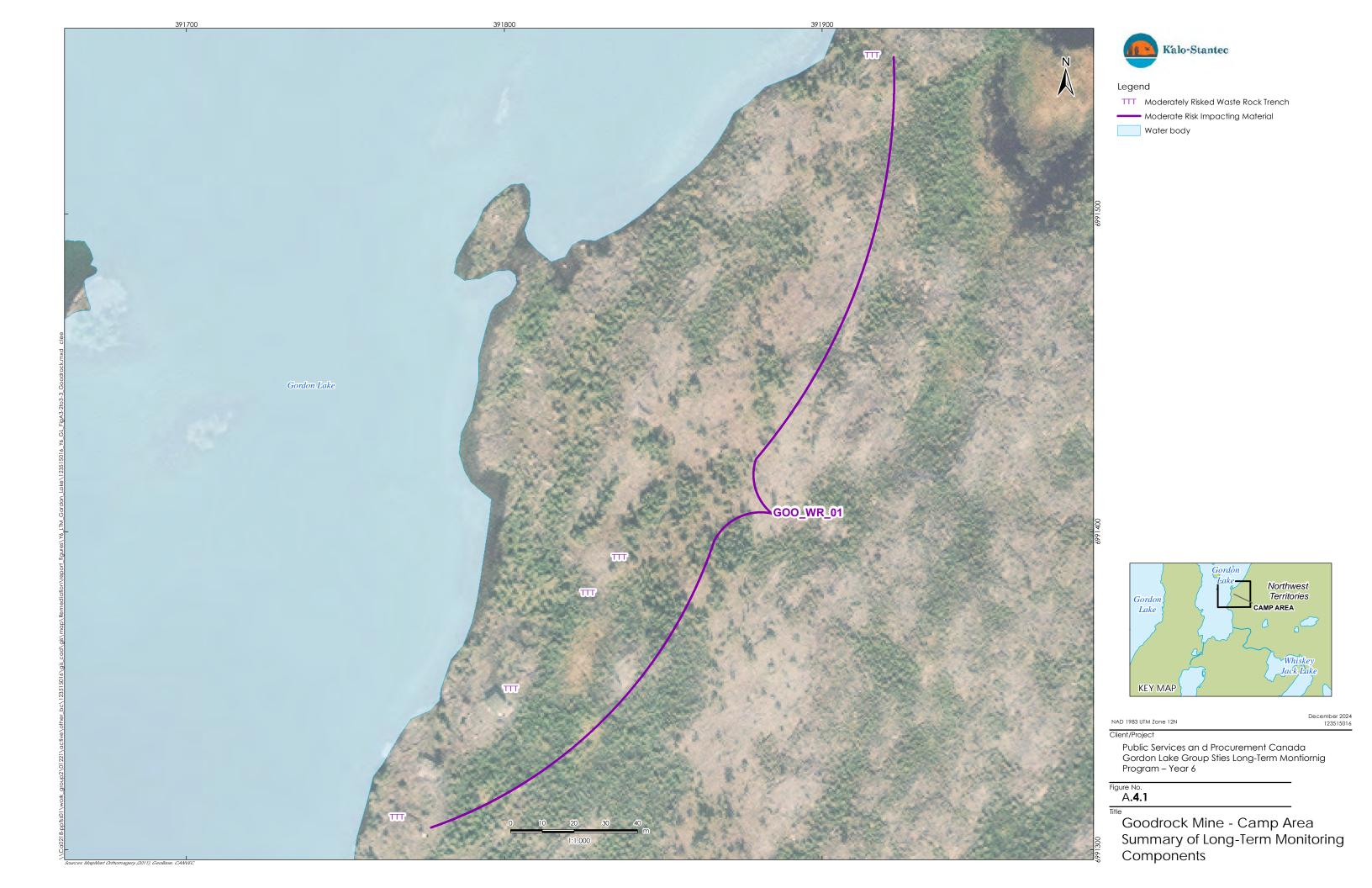


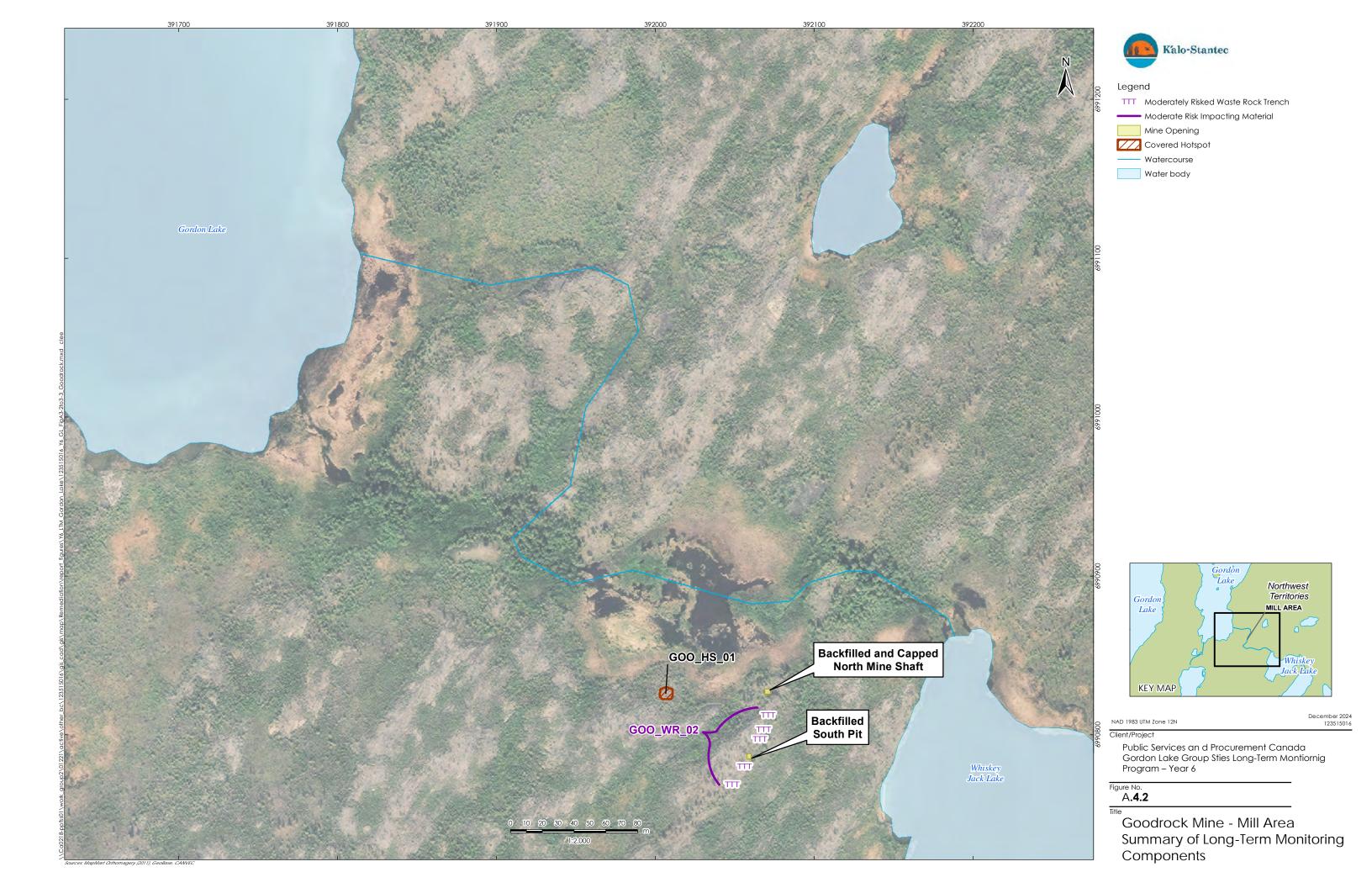
Public Services an d Procurement Canada Gordon Lake Group Sties Long-Term Montiornig Program – Year 6

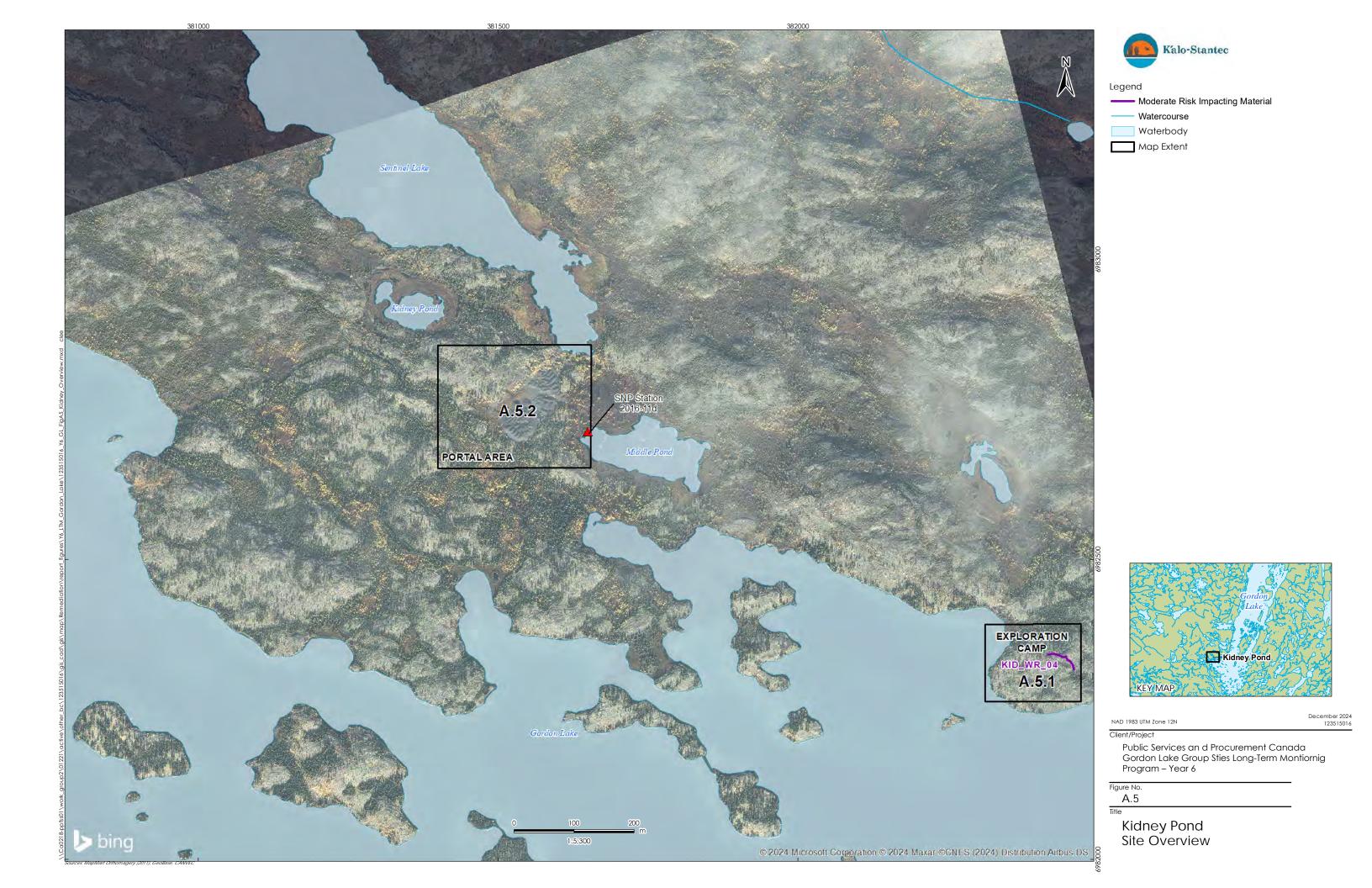
Camlaren - Mine Area North Summary of Long-Term Monitoring

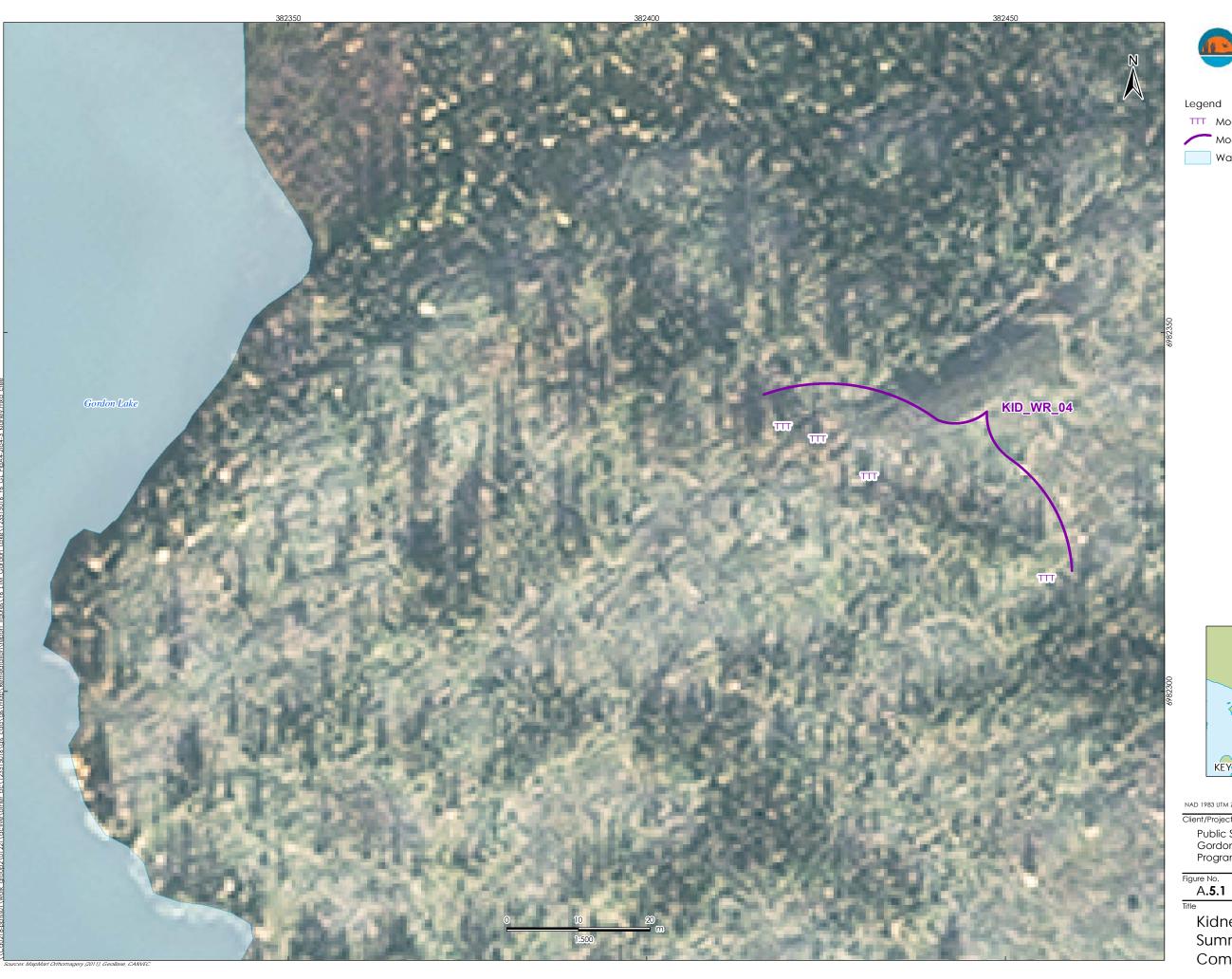














Legend

TTT Moderately Risked Waste Rock Trench

Moderate Risk Impacting Material

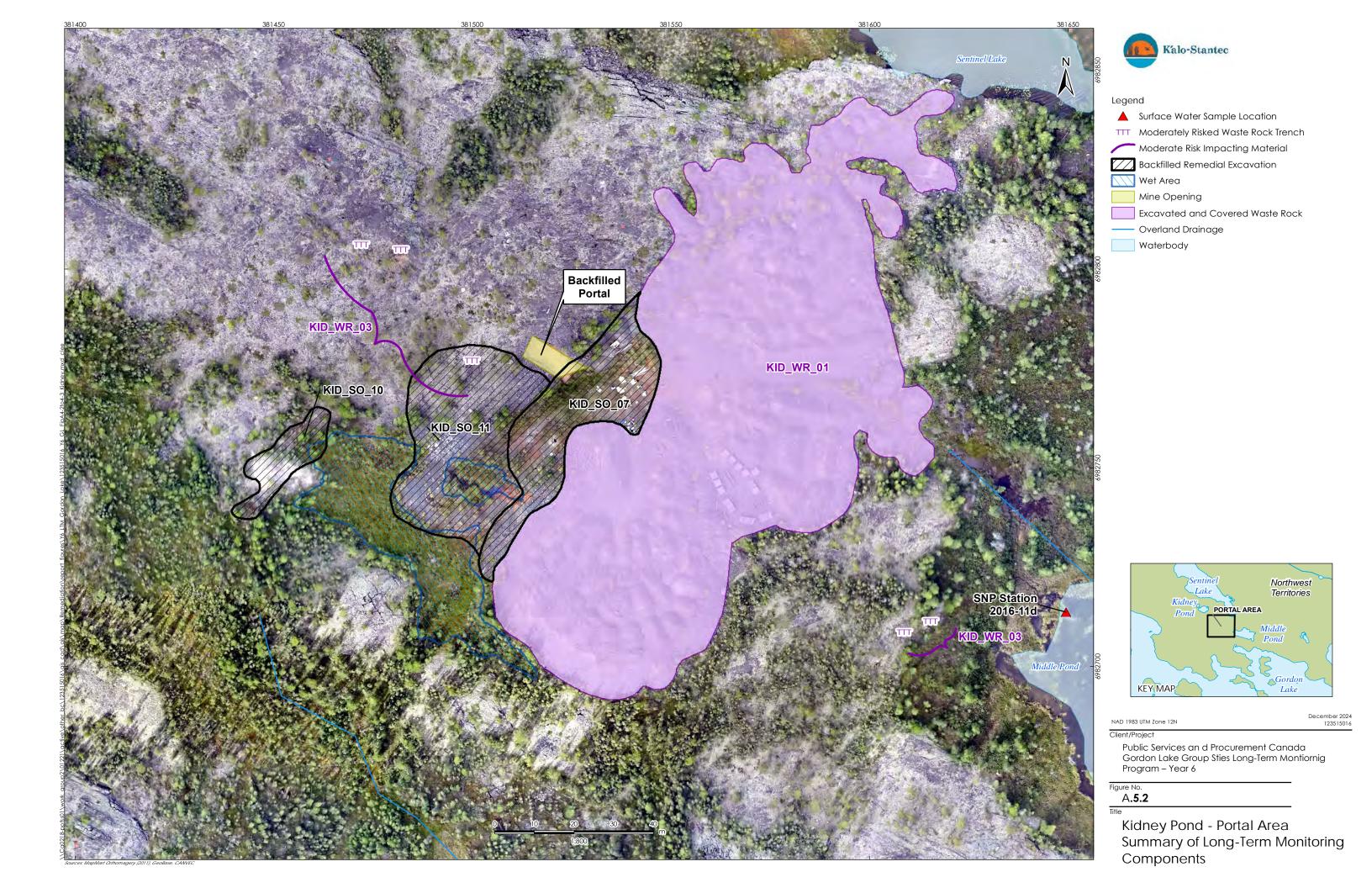
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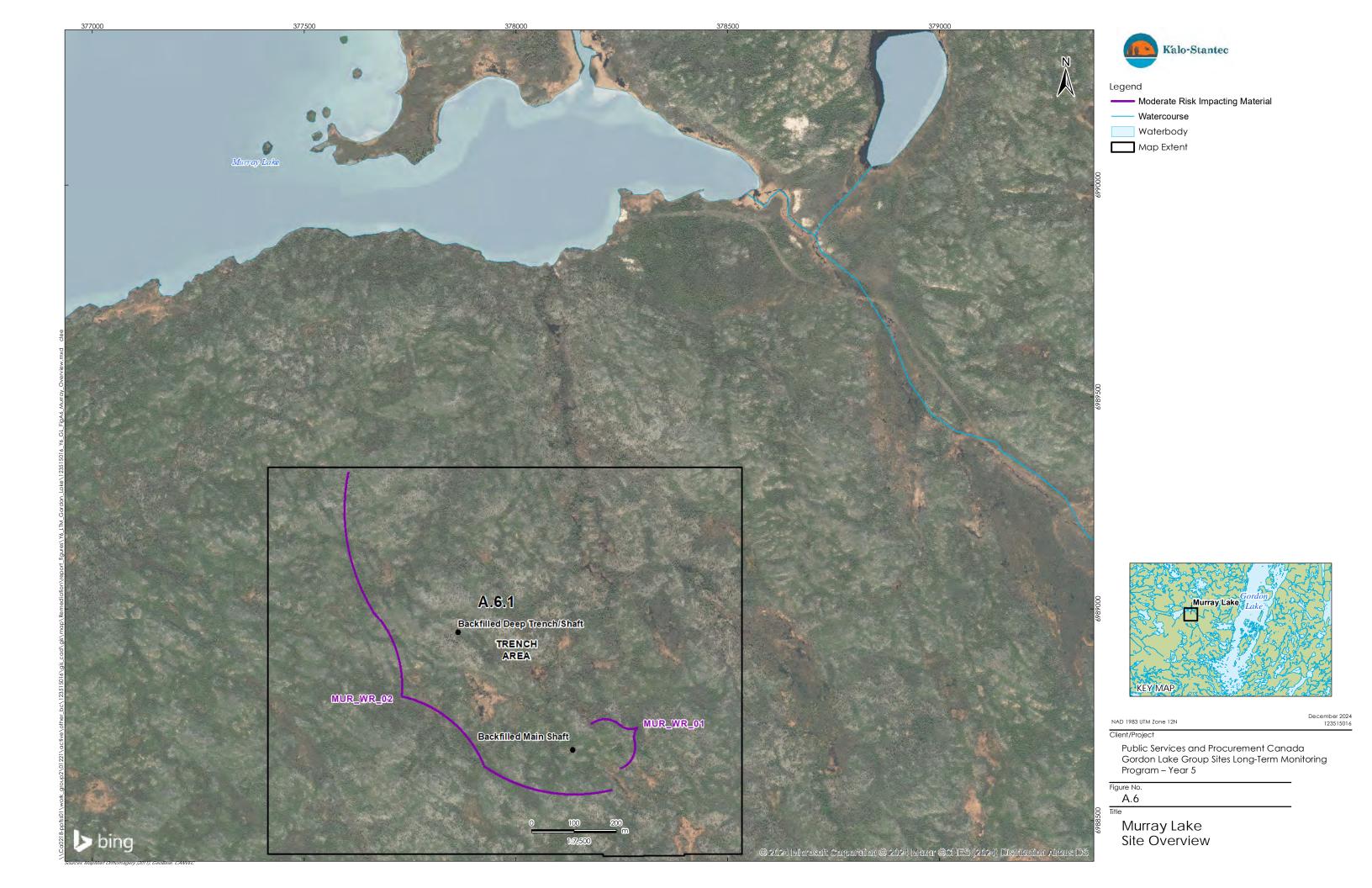


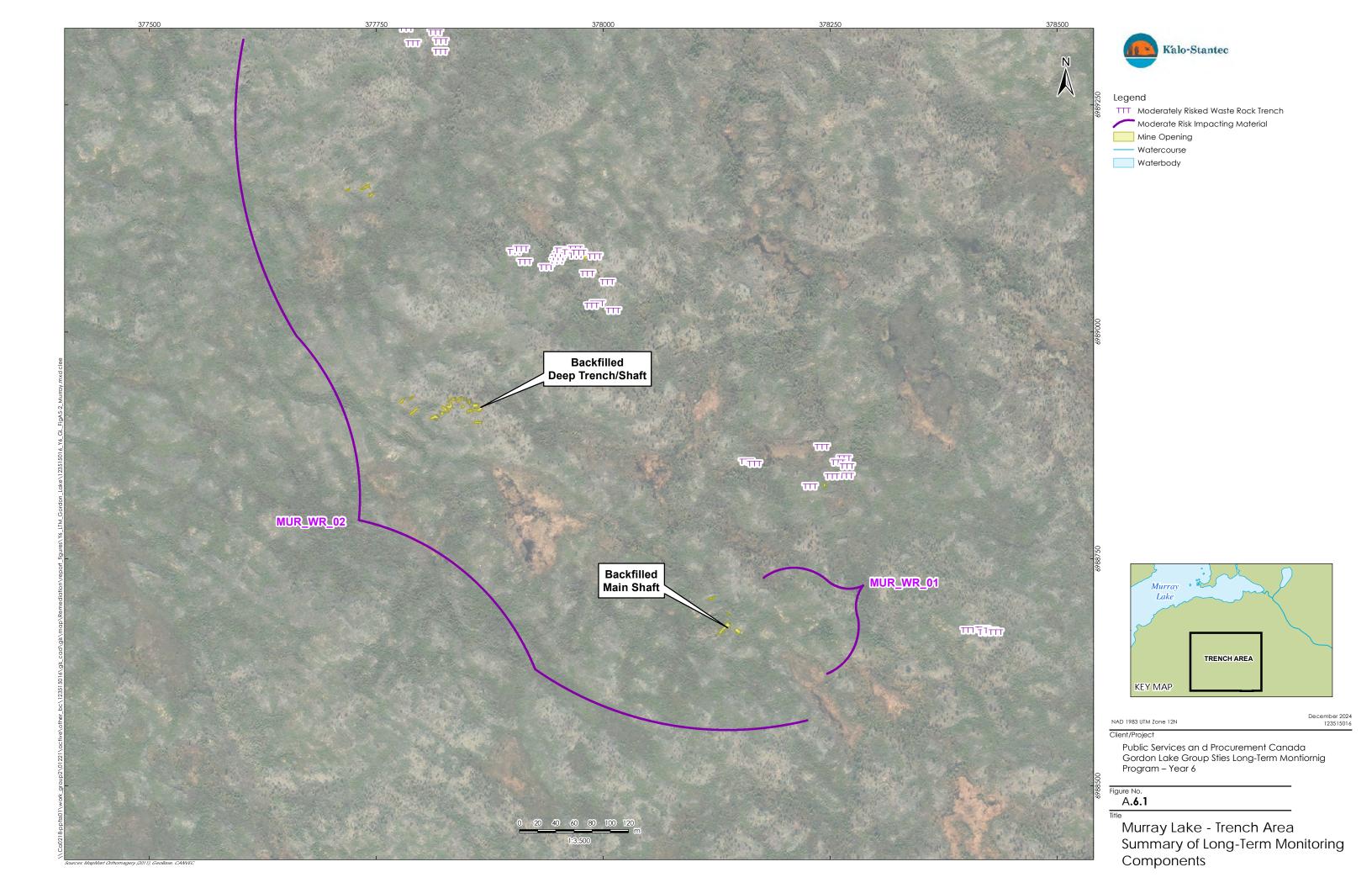
NAD 1983 UTM Zone 12N

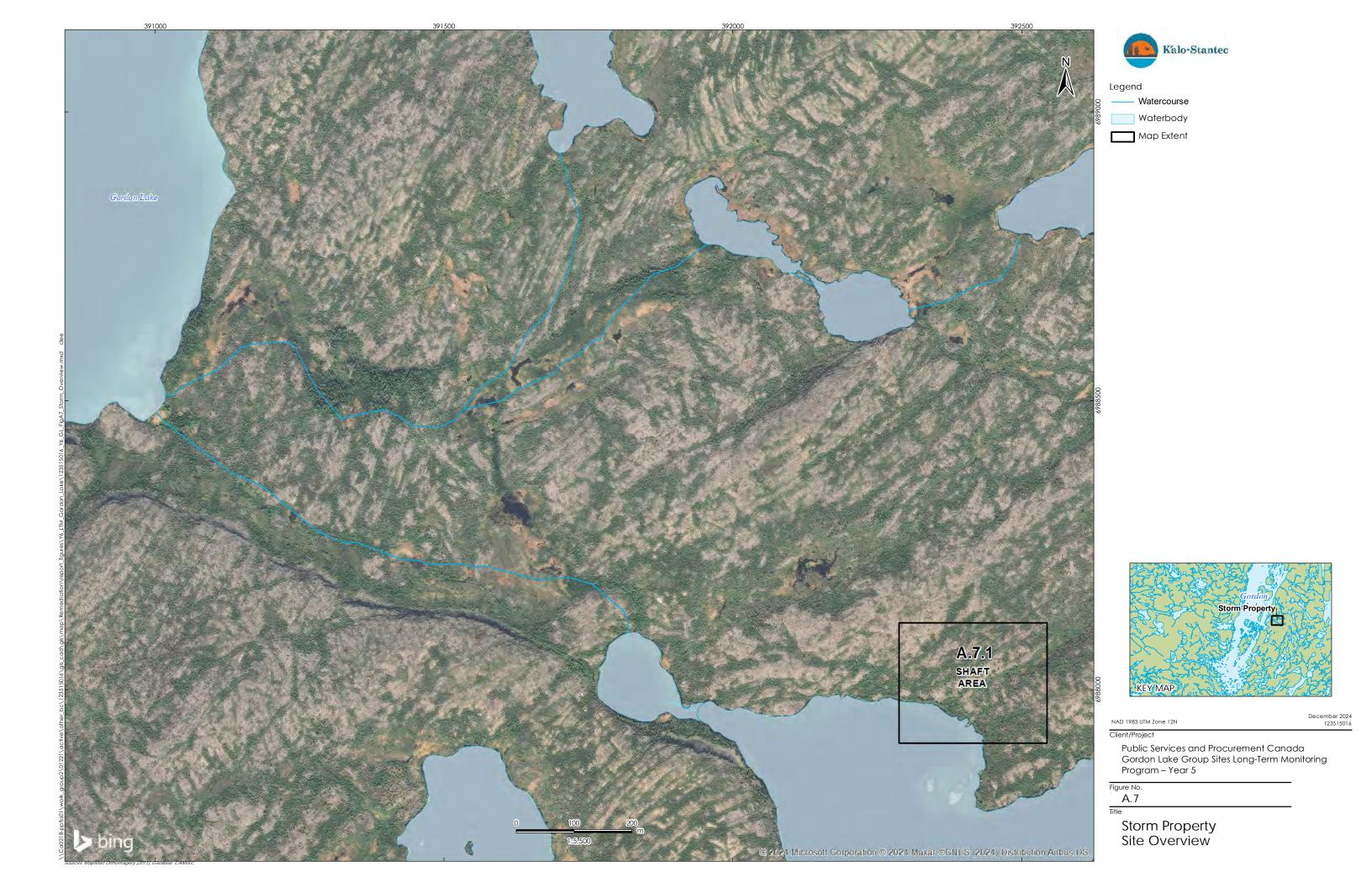
Public Services an d Procurement Canada Gordon Lake Group Sties Long-Term Montiornig Program – Year 6

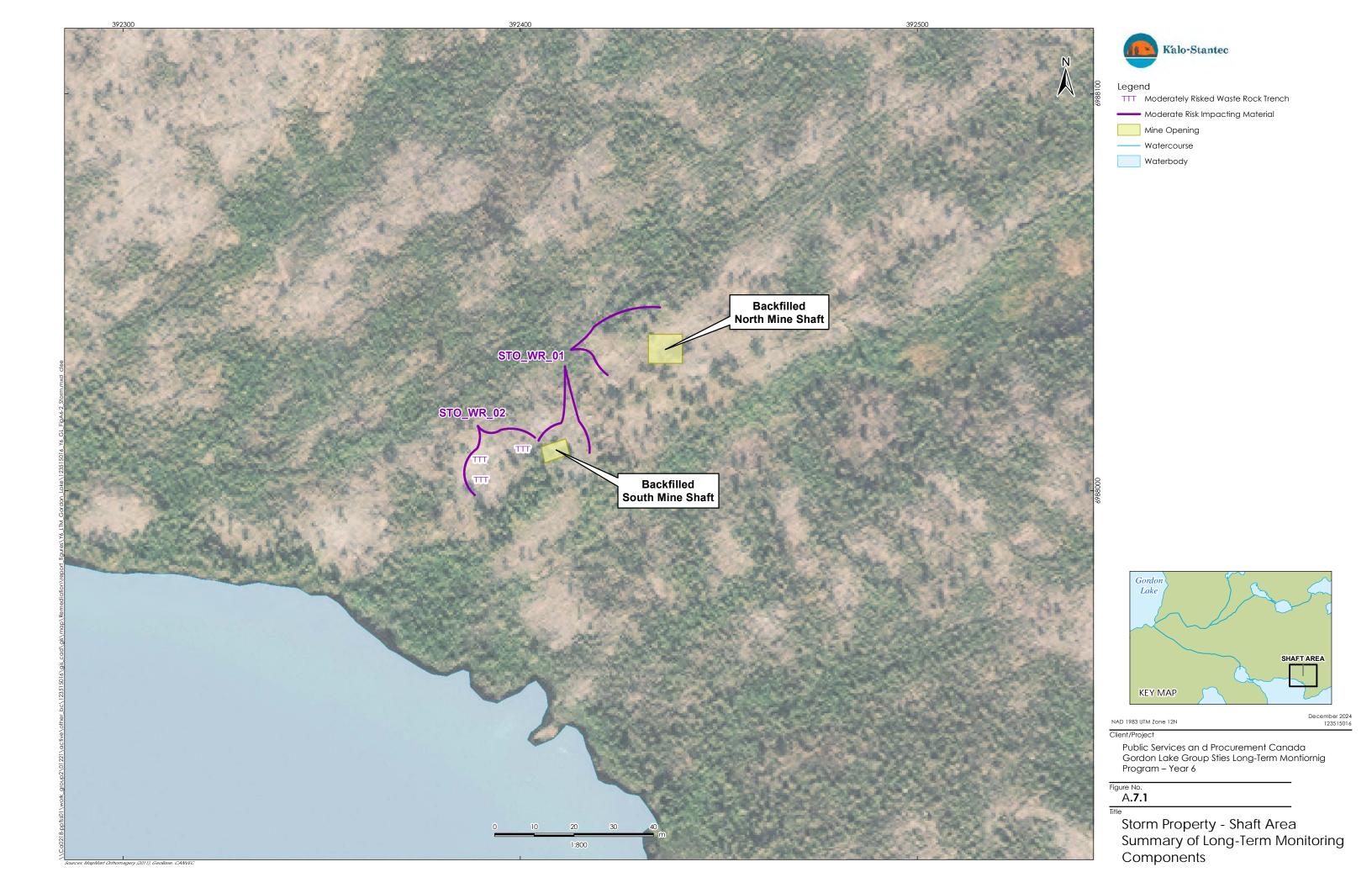
Kidney Pond - Exploration Camp Summary of Long-Term Monitoring Components

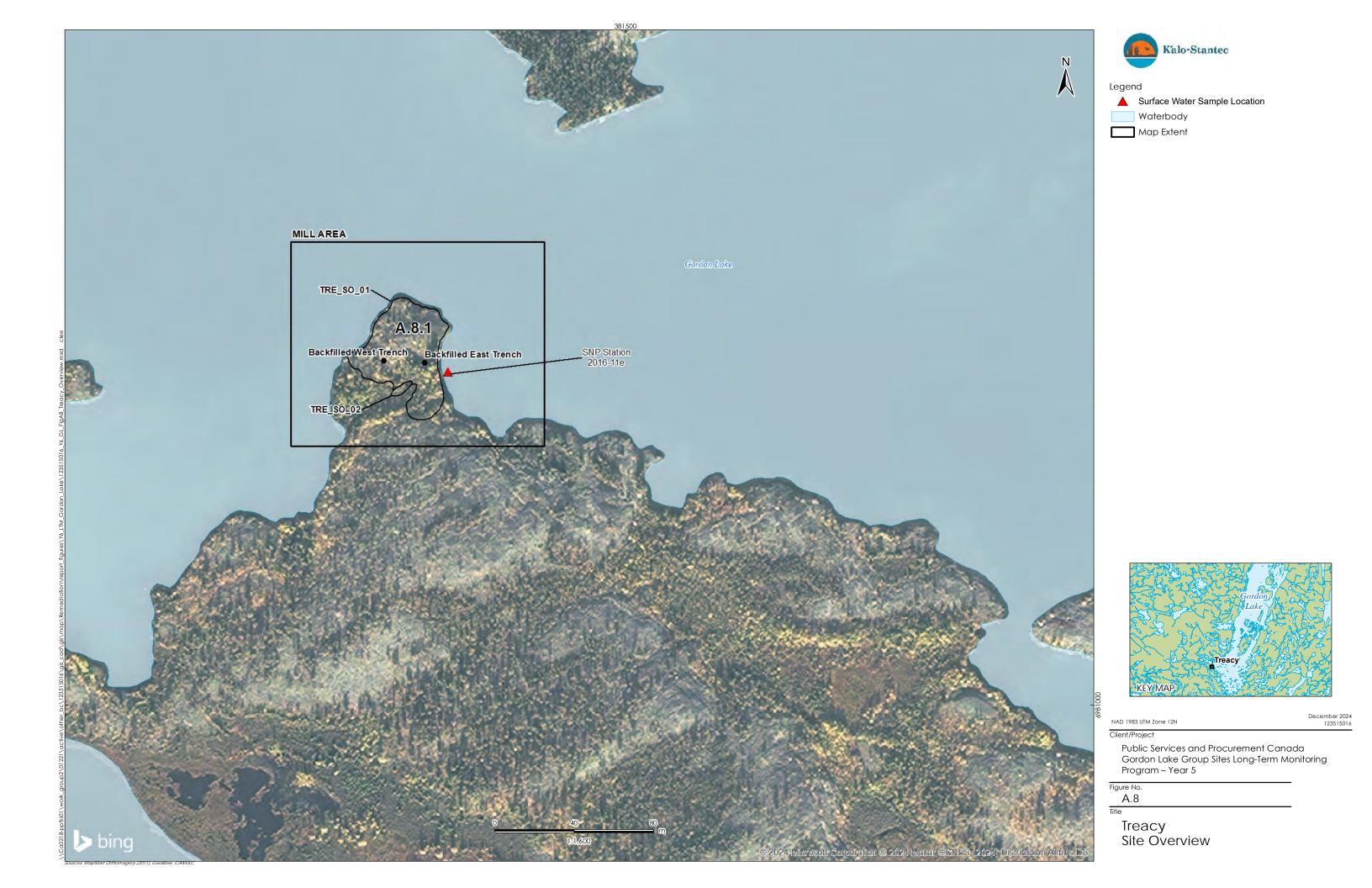














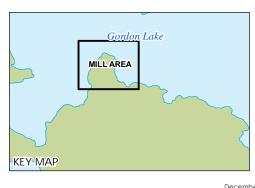


▲ Surface Water Sample Location Backfilled Remedial Excavation

Mine Opening

Excavated Waste Rock

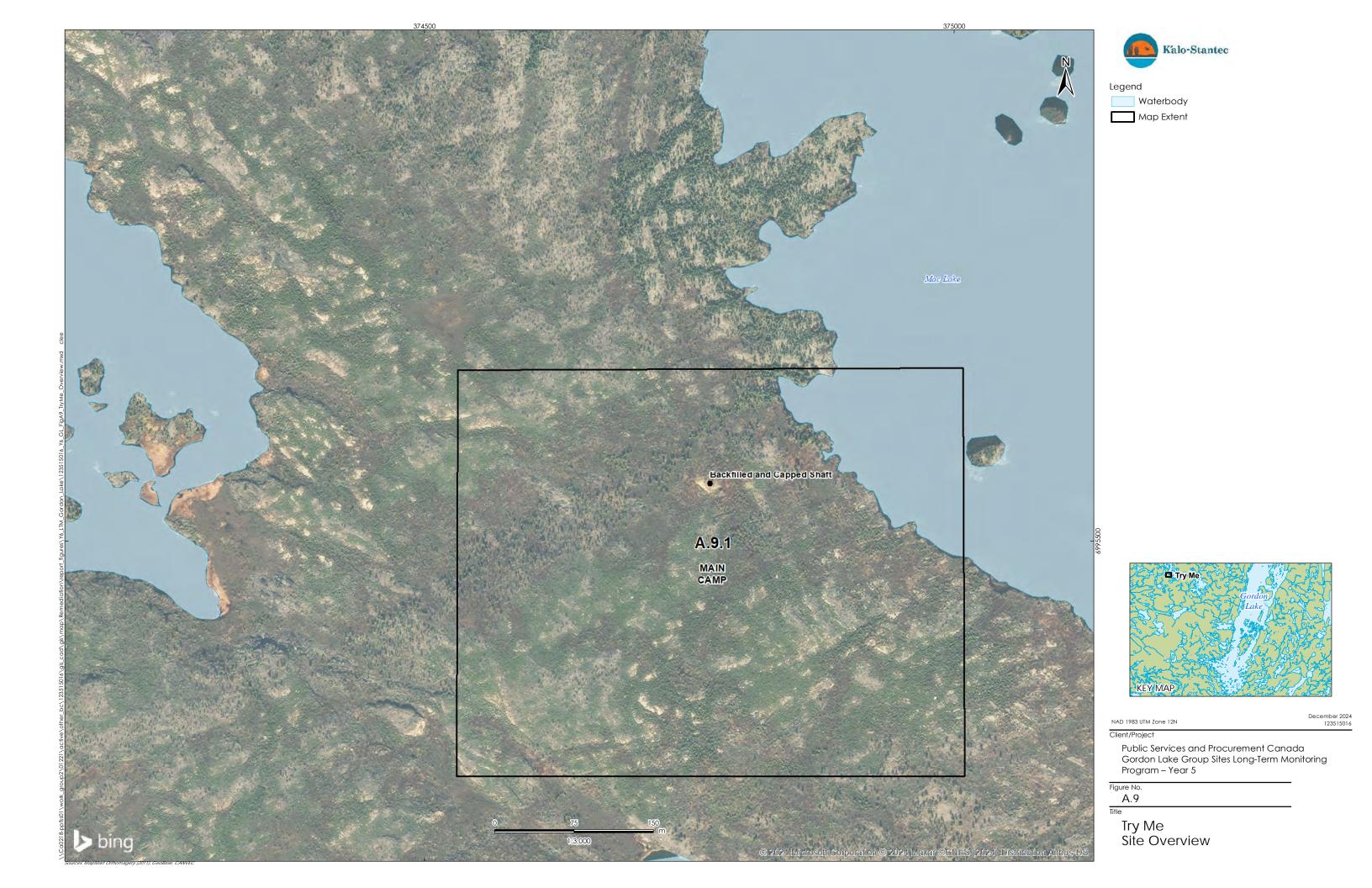
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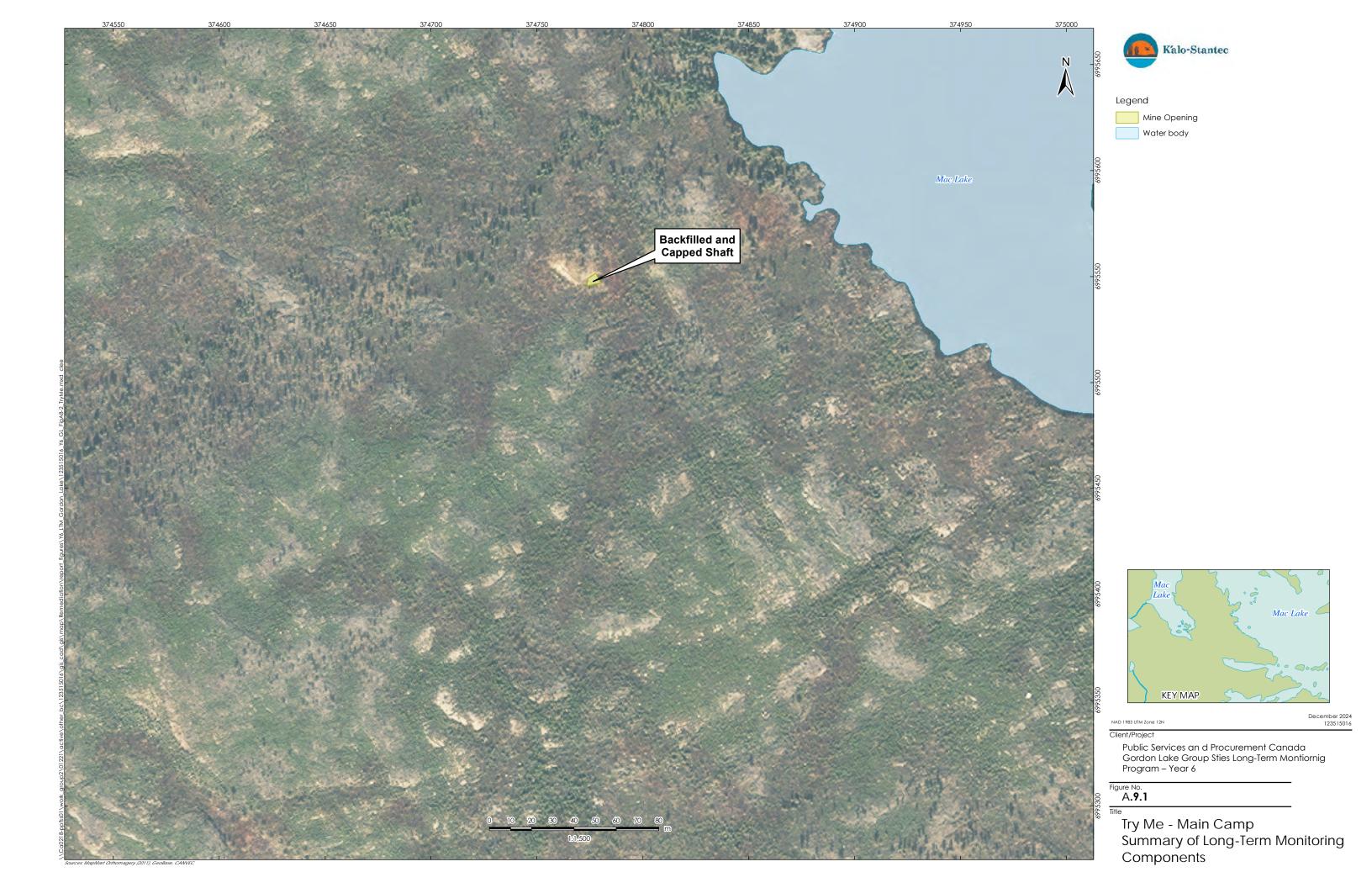


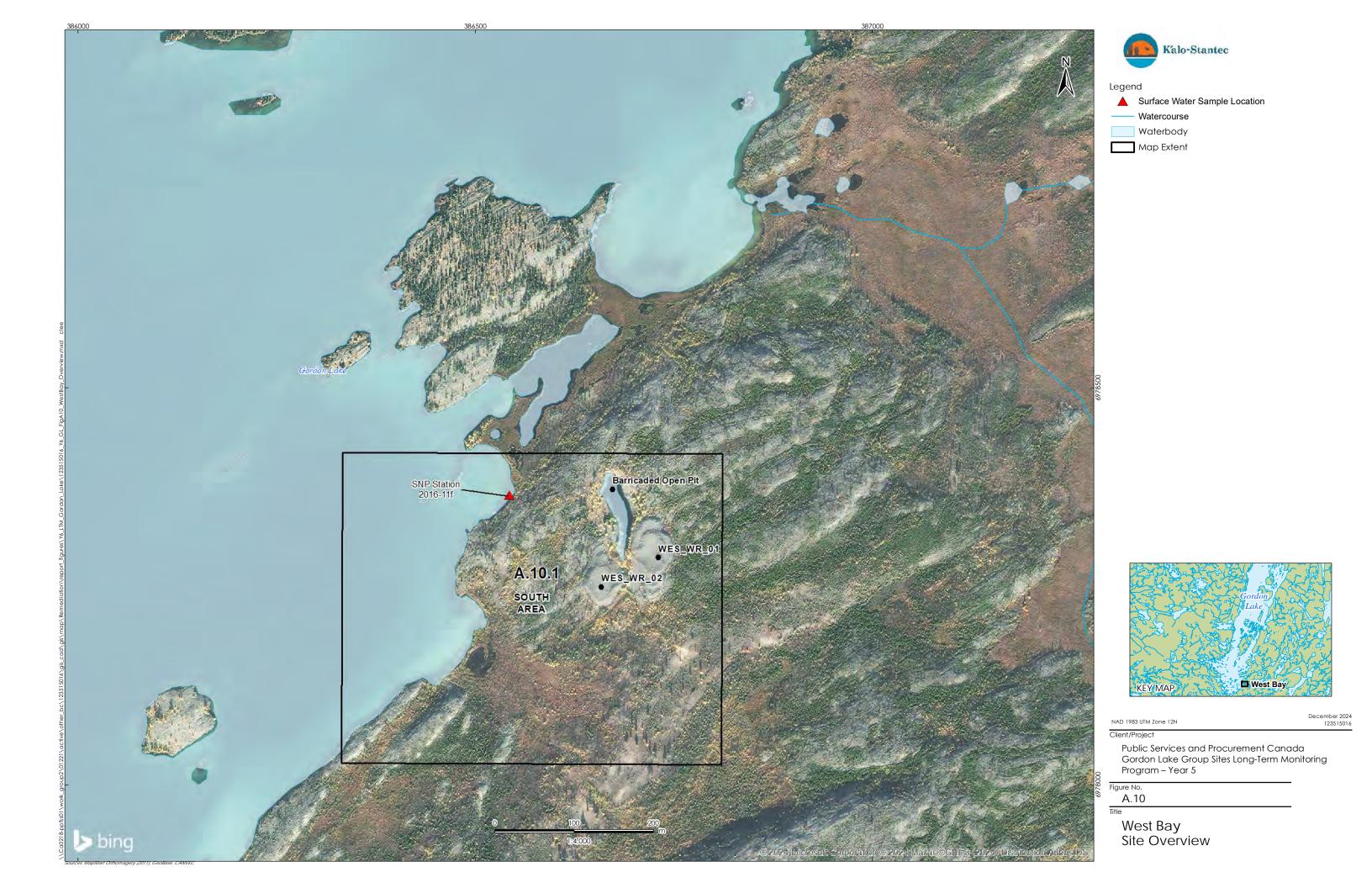
Public Services an d Procurement Canada Gordon Lake Group Sties Long-Term Montiornig Program – Year 6

Figure No. A.8.1

Treacy - Mill Area Summary of Long-Term Monitoring Components











▲ Surface Water Sample Location

Remedial Excavation

Tailings Excavation Waste Rock Requiring Monitoring

Watercourse

Water body



NAD 1983 UTM Zone 12N

Public Services an d Procurement Canada Gordon Lake Group Sties Long-Term Montiornig Program – Year 6

West Bay - South Area Summary of Long-Term Monitoring Components

Appendix B Data Tables



B.1

Table B.1 Surveillance Plan Details Gordon Lake Group Long-Term Monitoring

Site Name	Hazard Category	Hazard Name	Phase I LTM Figure No.	Monitoring Driver	Phase I Long Term Monitoring Objectives	Triggers for Adaptive Management	Potential Mitigative Actions	Phase I LTM Frequency	Phase I LTM Duration	Target Dates	Exit Criteria
Burnt Island	Mine	Portal	A.2.2	Physical	Verify backfill material is stable with no significant	Major subsidence (>0.5m) of backfill is observed and/or	Investigation to identify cause and/or safety concerns.	Quadrennially	Years 1 and 5	Frost-free periods	Exit criteria are not applicable for mine openings until
	Openings				resulting erosion or settlement.	structural concerns (e.g. deformation, cracking, etc.).	Completing repairs as needed.				accepted by the authority having jurisdiction. However, inspection frequency will be reduced if the material is proven to be stable.
Burnt Island	Tailings	Tailings	A.2.1	Aesthetic	Verify cover material is stable with no significant resulting erosion or washout.	Erosion/washout which exposes any tailings and/or rills >10cm.	Re-covering/re-grading as needed.	Biennially	Years 1, 3 and 5	Snow-free periods	. Absence of major erosion/tailings exposure concerns over three consecutive monitoring events.
Burnt Island	Mine Openings	Mine Shaft	A.2.2	Physical	Verify the backfill material is stable with no significant resulting erosion or settlement. Verify the structural stability of the mine opening cap.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Investigation to identify cause and/or safety concerns. Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	Exit criteria are not applicable for mine openings until accepted by the authority having jurisdiction. However, inspection frequency will be reduced if the material is proven to be stable.
Burnt Island	Waste Rock	BUR_WR_01	A.2.3	Chemical	Verify no visual signs of ARD down-gradient of remaining impacts.	Down-gradient environment indicates signs of ARD (e.g. new loss of vegetation, stressed vegetation, discoloration, etc.).	Sampling of down-gradient soil and surface water for metals. Trouble-shooting potential sources and addressing waste rock if needed.	Quadrennially	Years 1 and 5	Summer	Future exit criteria as well as triggers for action/monitoring frequency will be based on long-term results of monitoring.
Camlaren	Metals	CAM SO 04	A.3.1	Erosion	Verify excavation backfill material is stable with no	Erosion/washout concerns in nearby water and/or rills >10cm.	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Years 1, 3 and 5	Frost-free periods	
oaa.o	Impacted Soil	0,400_0	740.1	2.00.0.1	significant resulting erosion or washout into down- gradient water.		frequency and/or adjusting sampling locations if needed.	Jiemmany	, said t	. rest ince policus	consecutive monitoring events.
Camlaren	Metals	CAM SO 06	A.3.1	Erosion	Verify excavation backfill material is stable with no	Erosion/washout concerns in nearby water and/or rills >10cm.	Trouble-shooting of source and sediment/erosion control measures as needed. Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Vegre 1 3 and 5	Frost-free periods	Absence of major erosion concerns over three
Camaren	Impacted Soil	OAINI_00_00	Α.υ. Ι	Liosion	significant resulting erosion or washout into down- gradient water.	Erosion washout concerns in nearby water and/or his > room.	frequency and/or adjusting sampling locations if needed.	Biermany	Tears 1, 5 and 5	Trost-fice periods	consecutive monitoring events.
Camlaren	Metals Impacted Soil	CAM_SO_07	A.3.1	Erosion	Verify excavation backfill material is stable with no significant resulting erosion or washout into downgradient water.	Erosion/washout concerns in nearby water and/or rills >10cm.	Trouble-shooting of source and sediment/erosion control measures as needed. Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing frequency and/or adjusting sampling locations if needed.	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three consecutive monitoring events.
0	N4-4-1-	0414 00 00	101	Ei	V-sife		Trouble-shooting of source and sediment/erosion control measures as needed.	Disconicula	V 4 0 4 5	For the form of the state of	Al
Camlaren	Metals Impacted Soil	CAM_SO_08	A.3.1	Erosion	Verify excavation backfill material is stable with no significant resulting erosion or washout into down- gradient water.	Erosion/washout concerns in nearby water and/or nils >1ucm. Vegetative health observed to be decreasing (and potential erosion concerns as detailed above).	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing frequency and/or adjusting sampling locations if needed. Trouble-shooting of source and sediment/erosion control measures as needed. May consider	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three consecutive monitoring events.
					Visually monitor vegetative health to confirm stable or increasing growth.	·	revegetation or ways to increase vegetative health for the purpose of erosion control.				
Camlaren	Metals Impacted Soil	CAM_SO_12	A.3.1	Erosion	Verify excavation backfill material is stable with no significant resulting erosion or washout into down- gradient water.	Erosion/washout concerns in nearby water and/or rills >10cm.	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing frequency and/or adjusting sampling locations if needed.	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three consecutive monitoring events.
Camlaren	Metals	CAM_SO_20	A.3.2	Erosion	Verify excavation backfill material is stable with no	Erosion/washout concerns in nearby water and/or rills >10cm.	Trouble-shooting of source and sediment/erosion control measures as needed. Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three
oannaron	Impacted Soil	0,0020	711012	2.00.0.1	significant resulting erosion or washout into down- gradient water.		frequency and/or adjusting sampling locations if needed.	Jiemmany	, said i, said s	. root maa panada	consecutive monitoring events.
Camlaren	Metals	CAM_SO_23	A.3.3	Erosion	Verify excavation backfill material is stable with no	Frosion/washout concerns in nearby water and/or rills >10cm	Trouble-shooting of source and sediment/erosion control measures as needed. Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Years 1 3 and 5	Frost-free periods	Absence of major erosion concerns over three
	Impacted Soil	0,0020	7 11010	2.00.0.1	significant resulting erosion or washout into down- gradient water.	Vegetative health observed to be decreasing (and potential	frequency and/or adjusting sampling locations if needed.	Jiemmany	, said i, said s	. rest iies policus	consecutive monitoring events.
					Visually monitor vegetative health to confirm stable or increasing growth.	erosion concerns as detailed above).	Trouble-shooting of source and sediment/erosion control measures as needed. May consider revegetation or ways to increase vegetative health for the purpose of erosion control.				
Camlaren	PHC Impacted Soil	CAM_SO_01	A.3.1	Erosion	Verify excavation backfill material is stable with no significant resulting erosion or washout into down- gradient water.	Erosion/washout concerns in nearby water and/or rills >10cm.	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing frequency and/or adjusting sampling locations if needed.	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three consecutive monitoring events.
Camlaren	PHC	CAM SO 03	A.3.1	Erosion	Verify excavation backfill material is stable with no	Frosion/washout concerns in nearby water and/or rills >10cm	Trouble-shooting of source and sediment/erosion control measures as needed. Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Years 1 3 and 5	Frost-free periods	Absence of major erosion concerns over three
Carriaren	Impacted Soil	G/ IIII_CO_00	74.0.1	Erosion	significant resulting erosion or washout into down- gradient water.	Election was need conserved in medically water direction into a recent	frequency and/or adjusting sampling locations if needed. Trouble-shooting of source and sediment/erosion control measures as needed.	Borniany	Todio 1, o dila o	Troot nee penede	consecutive monitoring events.
Camlaren	PHC Impacted Soil	CAM_SO_05	A.3.1	Erosion	Verify excavation backfill material is stable with no significant resulting erosion or washout into down- gradient water.	Erosion/washout concerns in nearby water and/or rills >10cm.	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing frequency and/or adjusting sampling locations if needed.	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three consecutive monitoring events.
	PHC Impacted Soil	CAM_SO_14	A.3.2	Erosion	Verify excavation backfill material is stable with no significant resulting erosion or washout into down- gradient water.	Erosion/washout concerns in nearby water and/or rills >10cm.	Trouble-shooting of source and sediment/erosion control measures as needed. Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing frequency and/or adjusting sampling locations if needed.	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three consecutive monitoring events.
							Trouble-shooting of source and sediment/erosion control measures as needed.				
Camlaren	Mine Openings	Shaft	A.3.3	Physical	Verify backfill material is stable with no significant resulting erosion or settlement.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Investigation to identify cause and/or safety concerns. Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	accepted by the authority having jurisdiction. However, inspection frequency will be reduced if the
					Verify the structural stability of the mine opening cap.						material is proven to be stable.



Table B.1 Surveillance Plan Details Gordon Lake Group Long-Term Monitoring

Site Name	Hazard Category	Hazard Name	Phase I LTM Figure No.	Monitoring Driver	Phase I Long Term Monitoring Objectives	Triggers for Adaptive Management	Potential Mitigative Actions	Phase I LTM Frequency	Phase I LTM Duration	Target Dates	Exit Criteria
Camlaren	n/a	TSCA	A.3.1	TSCA	Verify stability of cover material and slopes (includes	<u>Differential settlement</u> - Differential settlement >0.5 m.	<u>Differential settlement</u> - Completing repairs, trouble-shooting of source, and/or increasing monitoring	Bi-Annually	Years 1 to 5	Frost-free periods	
				Performance	differential settlement, slope slumping, frost heave,	Slope Slumping - Horizontal cracks/movement >0.3 m.	frequency as needed.	(Spring and		at the tail end of	action/monitoring frequency will based on long-term
					vegetation growth and animal activities).	<u>Surface Erosion</u> - Slopes or cover erosion >25% loss of material thickness.	Slope Slumping - Completing repairs, trouble-shooting of source, and/or increasing monitoring	Summer)		spring freshet and	results of monitoring.
					Inspect toe of facility and identify potential seepage.	Frost Heave - Effects >0.2 m.	frequency as needed. <u>Surface Erosion</u> - Completing repairs, trouble-shooting of source, and/or increasing monitoring			summer.	
					Inspect toe of facility and identity potential seepage.	Vegetative Cover - Tree species with roots >0.3 m.	frequency as needed.				
					Visually monitor vegetative health to confirm stable or	Animal activities - Animal activities (such as burrowing)	Frost Heave - Completing repairs, trouble-shooting of source (e.g. ponding/settlement), and/or				
					increasing growth.	>0.3 m depth.	increasing monitoring frequency as needed.				
						Erosion Control - Coco matting (~5 m) is no longer deemed	<u>Vegetative Cover</u> - Remove tree species and/or repairs as needed.				
						effective.	Animal activities- Completing repairs, trouble-shooting of source, and/or increasing monitoring frequency	'			
						Ditch Erosion- Exposure of any amount of BGM (i.e. visible	as needed.				
						Ditch Blockage- Any debris/object that impedes flow or	Erosion Control - Replacing coco matting (~5 m), trouble-shooting of source, and/or increasing monitoring frequency as needed. May consider revegetation/reseeding or ways to increase vegetative				
						causes ponding.	health for the purpose of erosion control.				
							<u>Ditch Erosion</u> - Completing repairs, trouble-shooting of source, and/or increasing monitoring frequency				
						Seepage is identified at the toe of the facility.	as needed.				
							<u>Ditch Blockage</u> - Completing repairs, trouble-shooting of source (e.g. removal of blockage), and/or				
						Vegetative health observed to be decreasing (and potential	increasing monitoring frequency as needed.				
						erosion concerns as detailed above).	Sample accepage identified at the top of facility and groundwater/ourface water in vicinity (acc SND				
							Sample seepage identified at the toe of facility and groundwater/surface water in vicinity (see SNP				
Camlaren	n/a	TSCA	A.3.1	TSCA	Verify TSCA permeability functionality to prevent	Groundwater elevations (masl) within the TSCA show an	Trouble-shooting of cover system performance.	Bi-Annually	Years 1 to 5	Frost-free periods	
				Groundwater	infiltration.	increasing trend for 3 consecutive monitoring events (after		(Spring and		at the tail end of	action/monitoring frequency will based on long-term
				(elevations and		having obtained sufficient data to establish a trend).	Potential increased monitoring and/or completing repairs as needed.	Summer)			results of monitoring.
				contaminant						summer.	
Camlaren	n/a	TSCA	A.3.1	concentrations)	verily chemical integrity of the TSCA via groundwater	Groundwater contaminant concentrations down-gradient of	Reviewing and/or modifying the monitoring frequency and/or remedial design components may be	Bi-Annually	Years 1 to 5	Frost-free periods	Groundwater contaminant concentrations down-
					sampling.	the TSCA show an increasing trend and/or exceed applicable	required.	(Spring and		at the tail end of	gradient of the TSCA show a stable or decreasing
					Refer to SNP Program for sampling details (SNP	guidelines for three consecutive monitoring events (after having obtained sufficient data to establish a trend).	Trouble-shooting of TSCA performance.	Summer)		spring freshet and	
					Station 2016-7).	maving obtained sufficient data to establish a fielid).	Trouble-shooting of 13CA performance.			summer.	three consecutive monitoring events (after having obtained sufficient data to establish a trend).
					,		Completing renaire as peeded				,
Camlaren	n/a	TSCA	A.3.1		Verify chemical integrity of the TSCA via surface water	Surface water contaminant concentrations down-gradient of	Reviewing and/or modifying the monitoring frequency and/or remedial design components may be	Bi-Annually	Years 1 to 5	Frost-free periods	
				Water	sampling	the TSCA show an increasing trend and/or exceed applicable guidelines for three consecutive monitoring events (after	required.	(Spring and Summer)		at the tail end of	gradient of the TSCA show a stable or decreasing trend and/or remain below applicable guidelines for
					Refer to SNP Program for sampling details (SNP	having obtained sufficient data to establish a trend).	Trouble-shooting of TSCA performance.	Summer)		spring freshet and summer.	three consecutive monitoring events (after having
					Station 2016-8 and 11).	l and the second	Thouse should be the second se			ourmino.	obtained sufficient data to establish a trend).
					,		Completing repairs as needed.				,
Goodrock	Metals	GOO_HS_01	A.4.2	Risk	Verify cover material is stable with no significant	Erosion/washout which exposes any soil and/or rills >10cm.	Re-covering/re-grading as needed.	Biennially	Years 1, 3 and 5	Snow-free periods	. Absence of major erosion/soil exposure concerns
	Impacted				resulting erosion or washout.						over three consecutive monitoring events.
Goodrock	Mine	South Pit	A.4.2	Physical	Verify backfill material is stable with no significant	Major subsidence (>0.5m) of backfill is observed and/or	Investigation to identify cause and/or safety concerns.	Quadrennially	Years 1 and 5	Frost-free periods	
	Openings				resulting erosion or settlement.	structural concerns (e.g. deformation, cracking, etc.).	Completing repairs as needed.				accepted by the authority having jurisdiction. However, inspection frequency will be reduced if the
							Completing repairs as needed.				material is proven to be stable.
Goodrock	Mine	North Mine	A.4.2	Physical	Verify backfill material is stable with no significant	Major subsidence (>0.5m) of backfill is observed and/or	Investigation to identify cause and/or safety concerns.	Quadrennially	Years 1 and 5	Frost-free periods	Exit criteria are not applicable for mine openings until
	Openings	Shaft			resulting erosion or settlement.	structural concerns (e.g. deformation, cracking, etc.).					accepted by the authority having jurisdiction.
					\(\frac{1}{2} \\ \frac{1}{2} \\ \fra		Completing repairs as needed.				However, inspection frequency will be reduced if the
					Verify the structural stability of the mine opening cap.						material is proven to be stable.
Goodrock	Waste Rock	GOO_WR_01	A4.1	Chemical	Verify no visual signs of ARD down-gradient of	Down-gradient environment indicates signs of ARD (e.g. new	Sampling of down-gradient soil and surface water for metals.	Quadrennially	Years 1 and 5	Summer	Future exit criteria as well as triggers for
					remaining impacts.	loss of vegetation, stressed vegetation, discoloration, etc.).					action/monitoring frequency will be based on long-
0	Marta Dari	000 WP 00	A 4.0	Ob and a	Verificate discrete invested ADD design and discrete f	Decree and disent an increase the disenter single of ADD /- an area	Trouble-shooting potential sources and addressing waste rock if needed.	0	V415	0	term results of monitoring.
Goodrock	waste Rock	GOO_WR_02	A.4.2	Chemical	Verify no visual signs of ARD down-gradient of remaining impacts.	Down-gradient environment indicates signs of ARD (e.g. new loss of vegetation, stressed vegetation, discoloration, etc.).	Sampling of down-gradient soil and surface water for metals.	Quadrennially	Years 1 and 5	Summer	Future exit criteria as well as triggers for action/monitoring frequency will be based on long-
					Tomaning impacts.	loos of vegetation, stressed vegetation, discontinuon, etc.).	Trouble-shooting potential sources and addressing waste rock if needed.				term results of monitoring.
Kidney Pond	Co-Mingled	KID_SO_07	A.5.2	Erosion	Verify excavation backfill material is stable with no	Erosion/washout concerns in nearby water and/or rills >10cm.	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three
-	Impacted				significant resulting erosion or washout into down-	·	frequency and/or adjusting sampling locations if needed.			_	consecutive monitoring events.
	Soil				gradient water.	Vegetative health observed to be decreasing (and potential					
					\(\(\frac{1}{2} \) \(\frac{1} \) \(\frac{1} \) \(\frac{1}{2} \) \(\frac{1}{2}	erosion concerns as detailed above).	Trouble-shooting of source and sediment/erosion control measures as needed. May consider				
					Visually monitor vegetative health to confirm stable or increasing growth.		revegetation or ways to increase vegetative health for the purpose of erosion control.				
Kidney Pond	Co-Mingled	KID_SO_11	A.5.2	Erosion	Verify excavation backfill material is stable with no	Erosion/washout concerns in nearby water and/or rills >10cm.	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three
	Impacted				significant resulting erosion or washout into down-	·	frequency and/or adjusting sampling locations if needed.				consecutive monitoring events.
	Soil				gradient water.	Vegetative health observed to be decreasing (and potential					
						erosion concerns as detailed above).	Trouble-shooting of source and sediment/erosion control measures as needed. May consider				
					Visually monitor vegetative health to confirm stable or increasing growth.		revegetation or ways to increase vegetative health for the purpose of erosion control.				
Kidney Pond	PHC	KID SO 10	A.5.2	Erosion	Verify excavation backfill material is stable with no	Erosion/washout concerns in nearby water and/or rills >10cm.	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three
•	Impacted				significant resulting erosion or washout into down-	·	frequency and/or adjusting sampling locations if needed.				consecutive monitoring events.
	Soil				gradient water.	Vegetative health observed to be decreasing (and potential					
						erosion concerns as detailed above).	Trouble-shooting of source and sediment/erosion control measures as needed. May consider				
					Visually monitor vegetative health to confirm stable or		revegetation or ways to increase vegetative health for the purpose of erosion control.				
Kidney Pond	Waste Rock	KID WR 01	A.5.2	Erosion	increasing growth. Verify excavation backfill and large area of regraded	Erosion/washout concerns in nearby water and/or rills >10cm	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing	Biennially	Years 1 3 and 5	Frost-free periods	Future exit criteria as well as triggers for
. adrioy i oilu	. radio ridor		7	21031011	material is stable with no significant resulting erosion	2.55.5., Adonost concerns in nearby water and/or fills > 10011.	frequency and/or adjusting sampling locations if needed.	Diominany	. 5015 1, 5 010 5	oot nee penous	action/monitoring frequency will be based on long-
					or washout, especially into down-gradient water.	Vegetative health observed to be decreasing (and potential	, , ,				term results of monitoring.
						erosion concerns as detailed above).	Trouble-shooting of source and sediment/erosion control measures as needed. May consider				-
					Visually monitor vegetative health to confirm stable or		revegetation or ways to increase vegetative health for the purpose of erosion control.				
					increasing growth.						
-						•	•		•	•	



Table B.1 Surveillance Plan Details Gordon Lake Group Long-Term Monitoring

Site Name	Hazard Category	Hazard Name	Phase I LTM Figure No.	Monitoring Driver	Phase I Long Term Monitoring Objectives	Triggers for Adaptive Management	Potential Mitigative Actions	Phase I LTM Frequency	Phase I LTM Duration	Target Dates	Exit Criteria
Kidney Pond	Mine Openings	Portal	A.5.2	Physical	Verify backfill material is stable with no significant resulting erosion or settlement.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Investigation to identify cause and/or safety concerns. Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	Exit criteria are not applicable for mine openings until accepted by the authority having jurisdiction. However, inspection frequency will be reduced if the material is proven to be stable.
Kidney Pond	Waste Rock	KID_WR_03	A.5.2	Chemical	Verify no visual signs of ARD down-gradient of remaining impacts.	Down-gradient environment indicates signs of ARD (e.g. new loss of vegetation, stressed vegetation, discoloration, etc.).		Quadrennially	Years 1 and 5	Summer	Future exit criteria as well as triggers for action/monitoring frequency will be based on long-
Kidney Pond	Waste Rock	KID_WR_04	A.5.2	Chemical	Verify no visual signs of ARD down-gradient of remaining impacts.	Down-gradient environment indicates signs of ARD (e.g. new loss of vegetation, stressed vegetation, discoloration, etc.).		Quadrennially	Years 1 and 5	Summer	term results of monitoring. Future exit criteria as well as triggers for action/monitoring frequency will be based on long-
Murray Lake	Mine Openings	Main Shaft	A.6.1	Physical	Verify backfill material is stable with no significant resulting erosion or settlement.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Trouble-shooting potential sources and addressing waste rock if needed. Investigation to identify cause and/or safety concerns. Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	term results of monitoring. Exit criteria are not applicable for mine openings until accepted by the authority having jurisdiction. However, inspection frequency will be reduced if the
Murray Lake	Mine Openings	Deep Trench/Shaft	A.6.1	Physical	Verify backfill material is stable with no significant resulting erosion or settlement.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Investigation to identify cause and/or safety concerns. Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	material is proven to be stable.
Murray Lake	Waste Rock	MUR_WR_01	A.6.1	Chemical	Verify no visual signs of ARD down-gradient of remaining impacts.	Down-gradient environment indicates signs of ARD (e.g. new loss of vegetation, stressed vegetation, discoloration, etc.).		Quadrennially	Years 1 and 5	Summer	material is proven to be stable. Future exit criteria as well as triggers for action/monitoring frequency will be based on long-
Murray Lake	Waste Rock	MUR_WR_02	A.6.1	Chemical	Verify no visual signs of ARD down-gradient of remaining impacts.	Down-gradient environment indicates signs of ARD (e.g. new loss of vegetation, stressed vegetation, discoloration, etc.).	Trouble-shooting potential sources and addressing waste rock if needed. Sampling of down-gradient soil and surface water for metals. Trouble-shooting potential sources and addressing waste rock if needed.	Quadrennially	Years 1 and 5	Summer	term results of monitoring. Future exit criteria as well as triggers for action/monitoring frequency will be based on long-term results of monitoring.
Storm Property	Mine Openings	South Mine Shaft	A.7.1	Physical	Verify backfill material is stable with no significant resulting erosion or settlement.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Investigation to identify cause and/or safety concerns. Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	
Storm Property	Mine Openings	North Mine Shaft	A.7.1	Physical	Verify backfill material is stable with no significant resulting erosion or settlement.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Investigation to identify cause and/or safety concerns. Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	
Storm Property	Waste Rock	STO_WR_01	A.7.1	Chemical	Verify no visual signs of ARD down-gradient of remaining impacts.	Down-gradient environment indicates signs of ARD (e.g. new loss of vegetation, stressed vegetation, discoloration, etc.).	Sampling of down-gradient soil and surface water for metals. Trouble-shooting potential sources and addressing waste rock if needed.	Quadrennially	Years 1 and 5	Summer	Future exit criteria as well as triggers for action/monitoring frequency will be based on long-term results of monitoring.
Storm Property	Waste Rock	STO_WR_02	A.7.1	Chemical	Verify no visual signs of ARD down-gradient of remaining impacts.	Down-gradient environment indicates signs of ARD (e.g. new loss of vegetation, stressed vegetation, discoloration, etc.).		Quadrennially	Years 1 and 5	Summer	Future exit criteria as well as triggers for action/monitoring frequency will be based on long-term results of monitoring.
Treacy	Metals Impacted Soil	TRE_SO_01	A.8.1	Erosion	Verify excavation backfill material is stable with no significant resulting erosion or washout into downgradient water. Visually monitor vegetative health to confirm stable or	Erosion/washout concerns in nearby water and/or rills >10cm. Vegetative health observed to be decreasing (and potential erosion concerns as detailed above).	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing frequency and/or adjusting sampling locations if needed. Trouble-shooting of source and sediment/erosion control measures as needed. May consider revegetation or ways to increase vegetative health for the purpose of erosion control.	Biennially	Years 1, 3 and 5	Frost-free periods	
Treacy	PHC Impacted Soil	TRE_SO_02	A.8.1	Erosion	Verify excavation backfill material is stable with no significant resulting erosion or washout into downgradient water. Visually monitor vegetative health to confirm stable or	Erosion/washout concerns in nearby water and/or rills >10cm. Vegetative health observed to be decreasing (and potential erosion concerns as detailed above).	Reviewing SNP surface water results (SNP Station 2016-11 especially for TSS) and increasing frequency and/or adjusting sampling locations if needed. Trouble-shooting of source and sediment/erosion control measures as needed. May consider revegetation or ways to increase vegetative health for the purpose of erosion control.	Biennially	Years 1, 3 and 5	Frost-free periods	Absence of major erosion concerns over three consecutive monitoring events.
Treacy	Trenches	East Trench	A.8.1	Physical	Verify backfill material is stable with no significant resulting erosion or settlement.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Investigation to identify cause and/or safety concerns.	Quadrennially	Years 1 and 5	Frost-free periods	unless otherwise authorized by authorities having
Treacy	Trenches	West Trench	A.8.1	Physical	Verify backfill material is stable with no significant resulting erosion or settlement.	Major subsidence (>0.5m) of backfill is observed and/or structural concerns (e.g. deformation, cracking, etc.).	Completing repairs as needed. Investigation to identify cause and/or safety concerns.	Quadrennially	Years 1 and 5	Frost-free periods	jurisdiction. Exit criteria are not applicable for mine openings unless otherwise authorized by authorities having liurisdiction.
.,	Mine Openings	Shaft	A9.1	Physical	Verify backfill material is stable with no significant resulting erosion or settlement. Verify the structural stability of the mine opening cap.	structural concerns (e.g. deformation, cracking, etc.).	Completing repairs as needed. Investigation to identify cause and/or safety concerns. Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	Exit criteria are not applicable for mine openings until accepted by the authority having jurisdiction. However, inspection frequency will be reduced if the material is proven to be stable.
West Bay	Mine Openings	Open Pit	A.10.1	Physical	Verify barrier is structurally sound and remains effective.	Barrier is no longer effective due to deterioration or damage.	Completing repairs as needed.	Quadrennially	Years 1 and 5	Frost-free periods	Exit criteria are not applicable for mine openings until accepted by the authority having jurisdiction. Opportunity to re-inspect while completing TSCA performance monitoring will be taken as needed. However, inspection frequency will be reduced if the barrier is proven to be stable.



Table B.1 Surveillance Plan Details Gordon Lake Group Long-Term Monitoring

Site Name	Hazard Category	Hazard Name	Phase I LTM Figure No.	Monitoring Driver	Phase I Long Term Monitoring Objectives	Triggers for Adaptive Management	Potential Mitigative Actions	Phase I LTM Frequency	Phase I LTM Duration	Target Dates	Exit Criteria
West Bay West Bay	Waste Rock	WES WR 01 WES_WR_02	A.10.1 A.10.1	Chemical Chemical	Verify no visual signs of ARD down-gradient of remaining impacts. Verify chemistry of surrounding water bodies via surface water sampling for metals/general chemistry: Runoff from waste rock (if available) Pit lake (2 locations) Wetland (2 locations) Gordon Lake (3 locations) (locations consistent with previous supplemental assessment sample locations)	loss of vegetation, stressed vegetation, discoloration, etc.).	Increased monitoring frequency or sampling of down-gradient soil and/or surface water for metals. Trouble-shooting potential sources and addressing waste rock if needed.	Quadrennially	Years 1 and 5		Future exit criteria as well as triggers for action/monitoring frequency will be based on long-term results of monitoring. Surface water contaminant concentrations surrounding the waste rock show a stable or decreasing trend and/or remain below applicable guidelines for three consecutive monitoring events (after having obtained sufficient data to establish a trend).
Various Sites		BUR_SO_06; CAM_SO_02/1 3/17/24; GOO_HS_01; KID_SO_08/09/ 12; MUR_SO_01; STO_HS_01	N/A	Land Use	Verify that land uses do not change or result in greater exposure to contaminants of concern compared to the that assumed in the risk management approach (i.e. traditional use duration, food collection, and areas frequented). Land ownership/ approvals should remain unchanged or change to a less restrictive use. Administrative monitoring approach may include contacting local Hunters and Trappers Associations (HTAs), residents, councils, etc.	which results in inapplicability of the exposure scenarios defined in the risk management approach.	Revisit the risks associated with the contaminants of concern left in place via risk assessment updates. Mitigate significant risks as deemed appropriate (e.g. cover or remove impacted soil).	Quinquennially	Year 5		Exit criteria are not applicable for monitoring of land uses . However, inspection frequency can be reduced if deemed appropriate by the authorities having jurisdiction.



Table B.2
Summary of In-situ Groundwater Quality Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample ID / LTM Station	Sample Control	Sample Date	Easting	Northing		k-Up AGL)	Depth to	Depth to	Depth to	Groundwa ter	Temperature	Conductivity	Specific Conductance	Total Dissolved	Turbidity	Dissovle	d Oxygen	pH ORP	Sample Comments & Observations
Sample ID / ETM Station	Number	(DD-MMM-YY)	N/A	AD83	Top of Pipe	Top of Casing	Product (mBTOP)	Water (mBTOP)	Bottom (mBTOP)	Elevation (masl)	(°C)	(mS/cm)	(µS/cm)	Solids (mg/L)	(NTU)	(%)	(mg/L)	PF	Sample Comments & Observations
MW1	GLG-2024-00001-001	12-Jun-24			0.91	1.039	ND	5.416	6.146	294.2	8.5	1.972	2877	1869	23.80	2.0	0.23	6.50 -43.4	None
	GLG-2024-00002-001	10-Jul-24	388356	6986005	0.945	1.039	ND	5.140	6.145	294.5	5.8	1.859	2935	-	10.40	1.4	0.18	6.65 -77.8	None
	GLG-2024-00003-001	20-Aug-24	300330	0300003	1.040	1.039	ND	5.065	6.145	294.6	5.5	1844	2941	-	365.40	2.6	0.33	6.53 -67.7	No odour, no sheen observed
	GLG-2024-00004-001	12-Sep-24			1.043	1.039	ND	5.040	6.118	294.6	5.6	1564	248.2	-	159.34	13.9	1.75	6.45 -54.5	No odour, no sheen observed
MW2	GLG-2024-00001-002	12-Jun-24			0.93	0.993	ND	5.815	8.078	294.1	7.3	4.697	7088	4577	48.79	1.3	0.15	6.51 -37.7	None
	GLG-2024-00002-002	10-Jul-24	388352	6986051	0.930	0.993	ND	5.556	8.080	294.3	6.1	4.468	7011	-	18.75	1.0	0.12	6.53 -43	None
	GLG-2024-00003-002	20-Aug-24	000002	0300001	0.990	0.993	ND	5.010	8.100	294.9	3.5	3581	6083	-	38.82	9.3	1.23	6.45 47.6	No odour, no sheen observed
	GLG-2024-00004-002	12-Sep-24			1.000	0.993	ND	5.103	8.077	294.8	2.5	3036	531.2	-	166.48	11.9	1.62	6.46 -8.4	No odour, no sheen observed
MW3 (SNP2016-7a)	GLG-2024-00001-003	12-Jun-24			0.78	0.988	ND	2.214	7.893	291.0	7.1	1.651	2509	1635	112.07	1.1	0.13	6.96 -93.9	None
	GLG-2024-00002-003	10-Jul-24	388393	6986073	0.780	0.988	ND	2.260	7.898	290.9	7.7	1.654	2458	-	4.40	0.9	0.11	7.08 -135.	None
	GLG-2024-00003-003	20-Aug-24	000000	0300070	0.985	0.988	ND	2.365	7.895	290.8	7.2	1639	2467	-	176.08	2.6	0.31	6.88 -119.	No odour, no sheen observed
	GLG-2024-00004-003	12-Sep-24			0.990	0.988	ND	2.353	7.888	290.8	5.9	1426	2250	-	148.05	9.6	1.20	6.78 -96.8	No odour, no sheen observed
MW4 (SNP2016-7b)	GLG-2024-00001-004	12-Jun-24			0.55	0.843	ND	2.426	4.617	292.6	8.6	0.932	1357	884	8.76	3.4	0.39	6.58 -23.3	None
	GLG-2024-00002-004	10-Jul-24	388376	6985962	0.550	0.843	ND	2.970	4.620	292.1	8.8	0.582	844	-	5.94	3.7	0.43	6.64 -55.2	None
	GLG-2024-00003-004	20-Aug-24	000070	0300302	0.825	0.843	ND	3.220	4.620	291.9	11.0	564	769	-	0.00	7.5	0.83	6.47 -43.0	No odour, no sheen observed
	GLG-2024-00004-004	12-Sep-24			0.860	0.843	ND	2.604	4.593	292.5	9.4	642	914	-	175.58	12.0	1.37	6.52 49.1	No odour, no sheen observed
MW5 (SNP2016-7c)	GLG-2024-00001-005	14-Jun-24			0.67	0.805	ND	4.962	5.506	292.4	7.2	0.907	1511	967	97.80	16.5	1.97	6.77 -37.4	Low recharge, partial sample collected
	GLG-2024-00002-005	10-Jul-24	388236	6985922	0.902	0.805	ND	5.275	5.530	292.1	8.6	1.297	1890	-	18.93	11.7	2.71	7.19 -95.1	Low recharge; partial sample collected
	GLG-2024-00003-005	20-Aug-24	000200	0300322	0.905	0.805	ND	5.320	5.532	292.1	14.0	837	1061	-	28.53	41.0	4.23	6.98 -63.2	Low recharge; partial sample collected
	GLG-2024-00004-005	12-Sep-24			0.914	0.805	ND	5.385	5.495	292.0	10.2	15.73	19.10	-	159.09	70.3	7.90	7.27 25.3	Low recharge; partial sample collected
MW6 (SNP2016-7d)	GLG-2024-00001-006	12-Jun-24			0.67	0.893	ND	2.396	6.156	293.7	7.0	0.431	655	427	18.01	32.5	3.92	7.17 26.5	None
	GLG-2024-00001-006	10-Jul-24	388238	6986066	0.670	0.893	ND	2.509	6.155	293.6	10.8	0.443	607	-	1.68	57.0	6.32	7.34 61.7	None
	GLG-2024-00003-006	20-Aug-24	300230	0300000	0.910	0.893	ND	2.550	6.148	293.6	9.3	419.3	599	-	29.44	13.9	1.60	7.19 22.9	No odour, no sheen observed
	GLG-2024-00004-006	12-Sep-24			0.890	0.893	ND	2.695	6.155	293.4	7.4	374.5	565	-	144.30	55.2	6.63	7.40 120.2	No odour, no sheen observed
Duplicate (MW6 [SNP2016-7d])	GLG-2024-00001-019	12-Jun-24			0.67	0.893	ND	2.396	6.156	293.7	7.0	0.431	655	427	18.01	32.5	3.92	7.17 26.5	None
	GLG-2024-00001-019	10-Jul-24	388238	6986066	0.670	0.893	ND	2.509	6.155	293.6	10.8	0.443	607	-	2.68	57.0	6.32	7.34 61.7	None
	GLG-2024-00003-019	20-Aug-24	300230	0300000	0.910	0.893	ND	2.550	6.148	293.6	9.3	419.3	599	-	29.44	13.9	1.60	7.19 22.9	No odour, no sheen observed
	GLG-2024-00004-019	12-Sep-24			0.890	0.893	ND	2.695	6.155	293.4	7.4	374.5	565	-	144.30	55.2	6.63	7.40 120.2	No odour, no sheen observed

Notes:

mAGL - Metres above ground level mBTOP - metres below top of pipe

ND - Not detected

°C - Degree Celsius

mS/cm - Milisiemens per centimetre

μS/cm - Microsiemens per centimetre

mg/L - Milligram per litre

NTU - Nephelometric Turbidity Unit

mV - Millivolt

ORP - Oxidation/ Reduction Potential masl - metres above sea level



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location	1		T	1	M	W1		1	M	W2	
Sample Date				12-Jun-24	10-Jul-24	20-Aug-24	12-Sep-24	12-Jun-24	10-Jul-24	20-Aug-24	12-Sep-24
Sample ID									GLG-2024-00002-002		
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order				YL2400658	YL2400874	YL2401240	YL2401501	YL2400658	YL2400874	YL2401240	YL2401501
Laboratory Sample ID				YL2400658-001	YL2400874-009	YL2401240-007	YL2401501-001	YL2400658-002	YL2400874-010	YL2401240-006	YL2401501-002
Sample Type	Units	CCME	FIGQG								
General Chemistry		l	1	<u> </u>	I.	I.	I.	<u> </u>		I	
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	n/v	336	317	324	302	536	536	469	482
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total	mg/L	n/v	n/v	336	317	324	302	536	536	469	482
Ammonia (as N)	mg/L	0.0173/190 _{TBC2} A	0.0173/190 _{e,d,var3} B	1.50 ^{AB}	1.10 ^{AB}	1.06 ^{AB}	0.972 ^{AB}	2.53 ^{AB}	3.03 ^{AB}	0.739 ^{AB}	0.904 ^{AB}
Chloride	mg/L	120 ^A	100 ^B	11.6	11.7	10.5	11.6	253 ^{AB}	284 ^{AB}	191 ^{AB}	180 ^{AB}
Electrical Conductivity, Lab	μS/cm	n/v	n/v	2,700	2,630	2,740	2,750	6,580	6,310	5,810	5,910
Hardness (as CaCO3), Dissolved	mg/L	n/v	n/v	1,520	1,550	1,590	1,660	1,400	1,290	1,320	1,380
Hardness (as CaCO3), Total	mg/L	n/v	n/v	-	1,570	1,650	1,670	-	1,290	1,280	1,370
Nitrate	mg/L	13 ^A	13 ^B	<0.443	<0.443	<0.443	<0.443	<1.11	<1.11	<1.11	<1.11
Nitrate (as N)	mg/L	3.0 ^A	3 _{s12} ^B	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.250 DLDS	<0.250 DLDS	<0.250 DLDS	<0.250 DLDS
Nitrate + Nitrite (as N)	mg/L	n/v	100 ^B	< 0.102	<0.102	<0.102	<0.102	< 0.255	<0.255	<0.255	<0.255
Nitrite	mg/L	0.197 _{n1} ^A	0.20 _{s13} B	< 0.0656	<0.0656	<0.0656	<0.0656	< 0.164	<0.164	<0.164	< 0.164
Nitrite (as N)	mg/L	0.06 ^A	0.06 ^B	<0.0200 DLDS	<0.0200 DLDS	<0.0200 DLDS	<0.0200 DLDS	<0.0500 DLDS	<0.0500 DLDS	<0.0500 DLDS	<0.0500 DLDS
Orthophosphate (as P)	mg/L	n/v	n/v	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
pH, lab	S.U.	6.5-9.0 ^A	6.5-9 ^B	7.57	7.43	7.81	7.43	7.97	7.69	8.08	8.00
Phenolphthalein Alkalinity	mg/L	n/v	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phosphorus, Total	mg/L	n/v	n/v	0.0236	0.0125	0.0206	0.0140	0.0572	0.126	0.0302	0.0504
Sulfate	mg/L	n/v	100 ^B	1,370 ^B	1,480 ^B	1,510 ^B	1,490 ^B	3,100 ^B	3,450 ^B	3,030 ^B	2,870 ^B
Total Dissolved Solids	mg/L	n/v	3,000 ^B	2,440	2,600	2,350	2,610	5,680 ^B	5,390 ^B	4,500 ^B	5,070 ^B
Total Organic Carbon	mg/L	n/v	n/v	3.37	3.38	4.15	2.97	13.0	12.8	10.2	9.92
Total Suspended Solids	mg/L	A SN	n/v	65.1	56.9	54.8	45.4	38.5	34.6	3.8	3.8
BTEX and Petroleum Hydrocarbo	ns		•								
Benzene	μg/L	370 ^A	88 ^B	1.45	3.38	3.05	3.06	< 0.50	<0.50	<0.50	<0.50
Toluene	μg/L	2 ^A	83 ^B	1.11	3.15 ^A	2.45 ^A	2.23 ^A	< 0.50	<0.50	<0.50	< 0.50
Ethylbenzene	μg/L	90 ^A	3,200 ^B	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, m & p-	μg/L	n/v	В	0.62	0.99	0.61	0.77	<0.50	<0.40	<0.50	<0.50
Xylene, o-	μg/L	n/v	s1 B	<0.50	0.52	<0.50	<0.50	<0.50	<0.30	<0.50	<0.50
Xylenes, Total			s1	<0.75	1.51	<0.75	0.77	<0.75	<0.50	<0.75	<0.75
•	μg/L	n/v	3,900 ^B			<0.75	0.77	<0.75		<0.75	<0.75
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	340 ^B	-	<0.50	-	-	-	<0.50	-	-
Styrene	μg/L	72 ^A	72 ^B	-	<0.50	-	-	-	<0.50	-	-
PHC F1 (C6-C10 range)	μg/L	n/v	n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F1 (C6-C10 range) minus BTE		n/v	810 ^B	<100	<100	<100	<100	<100	<100	<100	<100
PHC F2 (>C10-C16 range)	μg/L	n/v	1,300 ^B	110	<100	140	110	<100	<100	<100	<100
PHC F3 (>C16-C34 range)	μg/L	n/v	n/v	<250	<100	<250	<250	<250	<100	<250	<250
PHC F4 (>C34-C50 range) Total BTEX (Calc)	μg/L	n/v n/v	n/v n/v	<250 3.2	<300 <300	<250 6.1	<250 6.1	<250 <1.2	<300 <300	<250 <1.2	<250 <1.2
Total Hydrocarbons (C6-C50)	μg/L μg/L	n/v	n/v	<400	<300	<400	<400	<400	<300	<400	<400
Metals, Dissolved	_ ⊬9/∟	1 11/V	11/ V	100	-500	1			-300	100	100
Calcium	mg/L	n/v	n/v	424	430	415	454	386	389	381	401
Magnesium	mg/L	n/v	n/v	111	116	135	129	105	78.4	88.7	93.4
Potassium	mg/L	n/v	n/v	53.4	48.2	51.8	50.4	81.2	70.5	73.8	73.3
Sodium	mg/L	n/v	n/v	93.5	72.2	62.8	61.2	1,540	1,260	1,000	925



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location					M	W1			M\	N2	
Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order				12-Jun-24 GLG-2024-00001-001 STANTEC ALS YL2400658	10-Jul-24	20-Aug-24 GLG-2024-00003-001 STANTEC ALS YL2401240	12-Sep-24 GLG-2024-00004-001 STANTEC ALS YL2401501	12-Jun-24 GLG-2024-00001-002 STANTEC ALS YL2400658	10-Jul-24	20-Aug-24	12-Sep-24 GLG-2024-00004-002 STANTEC ALS YL2401501
Laboratory Sample ID Sample Type	Units	CCME	FIGQG	YL2400658-001	YL2400874-009	YL2401240-007	YL2401501-001	YL2400658-002	YL2400874-010	YL2401240-006	YL2401501-002
Metals, Total	•	•	•			•					
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.005/0.1 _{e,d,VAR1} ^B	0.132 ^{AB}	0.0998	0.107 ^{AB}	0.112 ^{AB}	0.0347	0.0309	0.0256	0.0150
Antimony	mg/L	n/v	2 ^B	<0.00020 DLA	<0.00020 DLA	<0.00020 DLA	<0.00020 DLA	0.00074	<0.00050 DLA	0.00082	0.00072
Arsenic	mg/L	0.005 ^A	0.005 ^B	0.0145 ^{AB}	0.0108 ^{AB}	0.0139 ^{AB}	0.0217 ^{AB}	0.0988 ^{AB}	0.0756 ^{AB}	0.0207 ^{AB}	0.0375 ^{AB}
Barium	mg/L	n/v	0.5 ^B	0.0236	0.0202	0.0226	0.0227	0.0223	0.0244	0.0156	0.0145
Beryllium	mg/L	n/v	0.0053 ^B	<0.000040 DLA	<0.000200 DLA	<0.000100	<0.000100	<0.000100 DLA	<0.000100	<0.000100	<0.000100
Bismuth	mg/L	n/v	n/v	<0.000100 DLA	<0.000100 DLA	<0.000100 DLA	<0.000100 DLA	<0.000250 DLA	<0.000250 DLA	<0.000250 DLA	<0.000250 DLA
Boron	mg/L	1.5 ^A	0.5 ^B	0.129	0.143	0.150	0.147	0.138	0.145	0.146	0.150
Cadmium	mg/L	0.00009 _{LTG} ^A	0.00009 _c ^B	0.000341	0.000269	0.000228 ^{AB}	0.000401 ^{AB}	0.00309 ^{AB}	0.00153 ^{AB}	0.0121 ^{AB}	0.0131 ^{AB}
Calcium	mg/L	n/v	n/v	445	436	449	454	406	380	378	398
Cesium	mg/L	n/v	n/v	0.000040	0.000028	0.000028	0.000035	<0.000050 DLA	<0.000050 DLA	<0.000050 DLA	<0.000050 DLA
Chromium	mg/L	n/v	0.0089 _e ^B	<0.00100 DLA	<0.00100 DLA	<0.00100 DLA	<0.00100 DLA	<0.00250 DLA	<0.00250 DLA	<0.00250 DLA	<0.00250 DLA
Cobalt	mg/L	n/v	0.05 ^B	0.0147	0.0138	0.0135	0.0152	0.466 ^B	0.369 ^B	0.675 ^B	0.639 ^B
Copper	mg/L	0.002/0.004 _{TBC1} ^A	0.002/0.004 _{e,d,TBC1} ^B	<0.00100 DLA	<0.00100 DLA	<0.00100 DLA	<0.00100 DLA	<0.00250 DLA	0.00269	<0.00250 DLA	<0.00250 DLA
Iron	mg/L	0.3 ^A	0.3 ^B	42.8 ^{AB}	43.0 ^{AB}	46.4 ^{AB}	44.0 ^{AB}	19.8 ^{AB}	21.3 ^{AB}	1.35 ^{AB}	2.45 ^{AB}
Lead	mg/L	0.001/0.007 _{TBC1} A	0.001/0.007 _{e,d,TBC1} ^B	0.000558	0.000428	0.000489	0.000604	0.00166	0.00139	0.000442	0.000451
Lithium	mg/L	n/v	n/v	0.0278	0.0265	0.0272	0.0326	0.0378	0.0364	0.0361	0.0399
Magnesium	mg/L	n/v	n/v	116	116	129	131	86.6	82.8	81.8	92.0
Manganese	mg/L	n/v	0.2 ^B	1.46 ^{AB}	1.12 ^{AB}	1.08 ^B	1.26 ^B	11.1 ^{AB}	10.5 ^{AB}	10.9 ^B	11.1 ^B
Mercury	mg/L	0.000026 ^A	0.000026 _e ^B	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.000050	<0.000050	<0.000050	<0.0000050
Molybdenum	mg/L	0.073 ^A	0.073 ^B	0.000804	0.000895	0.000785	0.000889	0.00544	0.00506	0.00444	0.00433
Nickel	mg/L	0.025/0.15 _{TBC1} A	0.025/0.15 _{e,d,TBC1} ^B	0.00939	0.00681	0.00557	0.00555	0.799 ^{AB}	0.624 ^{AB}	1.63 ^{AB}	1.64 ^{AB}
Phosphorus	mg/L	n/v	n/v	<0.100 DLA	<0.100 DLA	<0.100 DLA	<0.100 DLA	<0.250 DLA	<0.250 DLA	<0.250 DLA	<0.250 DLA
Potassium	mg/L	n/v	n/v	54.2	48.8	52.5	53.2	76.9	71.5	73.2	76.6
Rubidium	mg/L	n/v	n/v	0.00765	0.00455	0.00448	0.00459	0.00586	0.00664	0.00272	0.00248
Selenium	mg/L	0.001 ^A	0.001 ^B	0.000141	<0.000100 DLA	0.000234	0.000144	0.000913	0.000665	0.00106 ^{AB}	0.000970
Silicon Silver	mg/L	n/v	n/v	12.9 0.000020	11.8 <0.000020 DLA	12.8 <0.000020 DLA	12.4 <0.000020 DLA	9.58 0.00064	10.0 0.000051	6.93 <0.000050 DLA	6.65 <0.000050 DLA
Sodium	mg/L mg/L	0.00025 ^A n/v	0.00025 ^B n/v	98.8	71.4	60.7	66.9	1,340	1,260	1,000	991
Strontium	mg/L	n/v	n/v	4.30	4.54	4.82	4.93	3.52	3.56	3.65	3.57
Sulfur	mg/L	n/v	n/v	523	540	565	537	1,140	1,120	1,060	996
Tellurium	mg/L	n/v	n/v	0.00040	0.00059	0.00071	0.00058	<0.00100 DLA	<0.00100 DLA	<0.00100 DLA	<0.00100 DLA
Thallium	mg/L	0.0008 ^A	0.0008 ^B	<0.000020 DLA	<0.000020 DLA	<0.000020 DLA	<0.000020 DLA	<0.000050 DLA	<0.000050 DLA	0.000053	<0.000050 DLA
Thorium	mg/L	n/v	n/v	<0.00020 DLA	<0.00030 DLM	<0.00020 DLA	<0.00020 DLA	<0.00050 DLA	<0.00050 DLA	<0.00050 DLA	<0.00050 DLA
Tin	mg/L	n/v	n/v	<0.00020 DLA	<0.00020 DLA	<0.00020 DLA	<0.00020 DLA	<0.00050 DLA	<0.00050 DLA	<0.00050 DLA	<0.00050 DLA
Titanium	mg/L	n/v	0.1 ^B	<0.00060 DLA	<0.00060 DLA	<0.00060 DLA	<0.00060 DLA	<0.00150 DLA	<0.00150 DLA	<0.00150 DLA	<0.00150 DLA
Tungsten	mg/L	n/v	n/v	0.00059	0.00112	0.00149	0.00126	0.00087	0.00070	<0.00050 DLA	<0.00050 DLA
Uranium	mg/L	0.015 ^A	0.01 ^B	0.00111	0.000864	0.000836	0.00105	0.0116 ^B	0.0112 ^B	0.00910	0.0100
Vanadium	mg/L	n/v	0.1 ^B	<0.00100 DLA	<0.00100 DLA	<0.00100 DLA	<0.00100 DLA	<0.00250 DLA	<0.00250 DLA	<0.00250 DLA	<0.00250 DLA
Zinc	mg/L	n/v	0.01 ^B	0.0659 ^B	0.0458 ^B	0.0385 ^B	0.0523 ^B	3.04 ^{AB}	1.83 ^{AB}	5.23 ^B	5.08 ^B
Zirconium	mg/L	n/v	n/v	<0.00040 DLA	<0.00040 DLA	<0.00040 DLA	<0.00040 DLA	<0.00180 DLM	0.00155	<0.00100 DLA	<0.00100 DLA



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location					MW3 (SN	P 2016-7a)			MW4 (SN	P 2016-7b)	
Sample Date				12-Jun-24	10-Jul-24	20-Aug-24	12-Sep-24	12-Jun-24	10-Jul-24	20-Aug-24	12-Sep-24
Sample ID					GLG-2024-00002-003	_	•			_	•
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order				YL2400658	YL2400874	YL2401240	YL2401501	YL2400658	YL2400874	YL2401240	YL2401501
Laboratory Sample ID				YL2400658-003	YL2400874-007	YL2401240-005	YL2401501-003	YL2400658-004	YL2400874-008	YL2401240-004	YL2401501-004
Sample Type	Units	ССМЕ	FIGQG	1 12400000-000	1 22400074-007	1 2 40 12 40 -003	122401301-003	1 22400030-004	1 2240007 4-000	1 1 2 40 1 2 40 - 00 4	1 1 2 40 130 1 - 00 4
- Campie Type	Omits	OGME	11000								
General Chemistry											
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	n/v	855	801	731	717	239	250	276	228
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total	mg/L	n/v	n/v	855	801	731	717	239	250	276	228
Ammonia (as N)		0.0173/190 _{TBC2} A	0.0173/190 _{e,d,var3} ^B	1.31 ^{AB}	1.38 ^{AB}	1.69 ^{AB}	1.85 ^{AB}	0.752 ^{AB}	0.289 ^{AB}	0.326 ^{AB}	0.200
Chloride	mg/L	120 ^A	100 ^B	31.7	33.0	32.0	35.2	9.13	3.42	2.80	3.59
Electrical Conductivity, Lab	μS/cm	n/v	n/v	2,290	2,180	2,260	2,380	1,240	822	798	847
Hardness (as CaCO3), Dissolved	mg/L	n/v	n/v	1,320	1,170	1,200	1,210	624	375	392	438
Hardness (as CaCO3), Total	mg/L	n/v	n/v	- 440	1,190	1,200	1,230	-	386	381	427
Nitrate	mg/L	13 ^A	13 ^B	<0.443	<0.443	<0.443	0.474	<0.111	<0.111	<0.111	0.287
Nitrate (as N)	mg/L	3.0 ^A	3 _{s12} ^B	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	0.107	<0.0250 DLDS	<0.0250 DLDS	<0.0250 DLDS	0.0649
Nitrate + Nitrite (as N)	mg/L	n/v	100 ^B	<0.102	<0.102	<0.102	0.107	<0.0255	<0.0255	<0.0255	0.0700
Nitrite	mg/L	0.197 _{n1} A	0.20 _{s13} B	< 0.0656	<0.0656	<0.0656	<0.0656	< 0.0164	0.0174	<0.0164	0.0167
Nitrite (as N)	mg/L	0.06 ^A	0.06 ^B	<0.0200 DLDS	<0.0200 DLDS	<0.0200 DLDS	<0.0200 DLDS	<0.0050 DLDS	0.0053	<0.0050 DLDS	0.0051
Orthophosphate (as P)	mg/L	n/v	n/v	< 0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010
pH, lab	S.U.	6.5-9.0 ^A	6.5-9 ^B	7.45	7.42	7.90	7.71	7.72	7.67	7.64	8.03
Phenolphthalein Alkalinity	mg/L	n/v	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phosphorus, Total	mg/L	n/v	n/v	0.0980	0.121	0.102	0.102	<0.0020	0.0204	0.0219	0.0172
Sulfate	mg/L	n/v	100 ^B	563 ^B	601 ^B	661 ^B	739 ^B	460 ^B	217 ^B	162 ^B	238 ^B
Total Dissolved Solids	mg/L	n/v	3,000 ^B	1,840	1,860	1,730	1,970	946	628	504	655
Total Organic Carbon	mg/L	n/v	n/v	19.5	18.4	19.0	21.6	11.8	10.7	10.5	13.2
Total Suspended Solids	mg/L	A SN	n/v	39.7	39.8	51.0	53.2	27.3	15.7	21.3	3.8
BTEX and Petroleum Hydrocarbo	ns										
Benzene	μg/L	370 ^A	88 ^B	<0.50	<0.50	<0.50	<0.50	0.60	<0.50	<0.50	<0.50
Toluene	μg/L	2 ^A	83 ^B	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50
Ethylbenzene	μg/L	90 ^A	3,200 ^B	< 0.50	<0.50	<0.50	<0.50	2.47	2.78	1.78	<0.50
Xylene, m & p-	μg/L	n/v	B s1	< 0.50	<0.40	<0.50	<0.50	3.00	3.10	1.79	<0.50
Xylene, o-	μg/L	n/v	В	<0.50	<0.30	<0.50	<0.50	<0.50	<0.30	<0.50	<0.50
Xylenes, Total	μg/L	n/v	3,900 ^B	<0.75	<0.50	<0.75	<0.75	3.00	3.10	1.79	<0.75
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	3,900 340 ^B	40.70	<0.50	40.70	10.70	0.00	<0.50	1.75	10.10
, ,		72 ^A	72 ^B	_	<0.50	-	- -	-	<0.50	-	-
Styrene PHC F1 (C6-C10 range)	μg/L	n/v	n/v	<100	<100	<100	<100	<100	110	<100	<100
PHC F1 (C6-C10 range) minus BTE	μg/L	n/v	810 ^B	<100	<100	<100	<100	<100	110	<100	<100
						<100	<100				
PHC F2 (>C10-C16 range)	μg/L	n/v	1,300 ^B	<100	<100			1,180	104	1,190	170
PHC F3 (>C16-C34 range) PHC F4 (>C34-C50 range)	μg/L μg/L	n/v n/v	n/v n/v	<250 <250	<100 <300	<250 <250	<250 <250	<250 <250	100 840	<250 <250	<250 <250
Total BTEX (Calc)	μg/L μg/L	n/v	n/v	<1.2	<300	<1.2	<1.2	6.1	<300	3.6	<1.2
Total Hydrocarbons (C6-C50)	μg/L	n/v	n/v	<400	<300	<400	<400	1,180	<300	1,190	<400
Metals, Dissolved	–							, , , , , , , , , , , , , , , , , , , ,		,	
Calcium	mg/L	n/v	n/v	364	322	323	330	192	122	130	143
Magnesium	mg/L	n/v	n/v	100	88.5	95.7	93.8	35.2	17.1	16.4	19.7
	mg/L	n/v	n/v	25.8	23.8	26.3	25.3	6.41	4.36	4.50	4.45
Potassium Sodium	mg/L	n/v	n/v	116	113	120	118	40.8	17.3	15.6	20.5



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location					MW3 (SNI	P 2016-7a)		<u> </u>	MW4 (SNI	P 2016-7b)	
Sample Date Sample ID Sampling Company Laboratory				12-Jun-24 GLG-2024-00001-003 STANTEC ALS	10-Jul-24 GLG-2024-00002-003 STANTEC ALS	20-Aug-24	12-Sep-24 GLG-2024-00004-003 STANTEC ALS	12-Jun-24 GLG-2024-00001-004 STANTEC ALS	10-Jul-24	20-Aug-24	12-Sep-24 GLG-2024-00004-004 STANTEC ALS
Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	ССМЕ	FIGQG	YL2400658 YL2400658-003	YL2400874 YL2400874-007	YL2401240 YL2401240-005	YL2401501 YL2401501-003	YL2400658 YL2400658-004	YL2400874 YL2400874-008	YL2401240 YL2401240-004	YL2401501 YL2401501-004
Metals, Total											
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.005/0.1 _{e,d,VAR1} ^B	0.0155	0.0128	0.0241	0.0278	0.0537	0.0459	0.0417	0.0354
Antimony	mg/L	n/v	2 ^B	<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010	0.00027	0.00020	0.00030	0.00055
Arsenic	mg/L	0.005 ^A	0.005 ^B	0.0170 ^{AB}	0.0181 ^{AB}	0.0168 ^{AB}	0.0172 ^{AB}	0.0294 ^{AB}	0.0283 ^{AB}	0.0223 ^{AB}	0.00529 ^{AB}
Barium	mg/L	n/v	0.5 ^B	0.261	0.242	0.269	0.281	0.0534	0.0340	0.0522	0.0508
Beryllium	mg/L	n/v	0.0053 ^B	<0.000040 DLA	<0.000100	<0.000100 DLA	<0.000100	<0.000040 DLA	<0.000100	<0.000100	<0.000100
Bismuth	mg/L	n/v	n/v	<0.000100 DLA	<0.000050	<0.000100 DLA	<0.000050	<0.000100 DLA	<0.000050	<0.000100 DLA	<0.000050
Boron	mg/L	1.5 ^A	0.5 ^B	0.096	0.106	0.104	0.110	<0.020 DLA	0.025	0.037	0.026
Cadmium	mg/L	0.00009 _{LTG} ^A	0.00009 _c ^B	<0.0000100 DLA	<0.0000050	0.0000113	0.0000050	0.0000433	0.0000521	0.000128 ^{AB}	0.000153
Calcium	mg/L	n/v	n/v	340	334	334	343	184	127	127	141
Cesium	mg/L	n/v	n/v	<0.000020 DLA	<0.000010	<0.000020 DLA	<0.000010	0.000022	0.000013	<0.000020 DLA	0.000015
Chromium	mg/L	n/v	0.0089 _e ^B	<0.00100 DLA	<0.00050	<0.00100 DLA	0.00065	<0.00100 DLA	0.00054	<0.00100 DLA	<0.00050
Cobalt	mg/L	n/v	0.05 ^B	0.0214	0.0198	0.0216	0.0242	0.0130	0.00752	0.00506	0.00671
Copper	mg/L	0.002/0.004 _{TBC1} A	0.002/0.004 _{e,d,TBC1} ^B	<0.00100 DLA	<0.00050	<0.00100 DLA	<0.00050	0.00212	0.00249	0.00653 ^{AB}	0.00628 ^{AB}
Iron	mg/L	0.3 ^A	0.3 ^B	14.3 ^{AB}	15.9 ^{AB}	20.2 ^{AB}	22.6 ^{AB}	12.1 ^{AB}	7.81 ^{AB}	9.53 ^{AB}	1.73 ^{AB}
Lead	mg/L	0.001/0.007 _{TBC1} A	0.001/0.007 _{e,d,TBC1} ^B	<0.000100 DLA	<0.000050	<0.000100 DLA	<0.000050	0.000587	0.00113	0.00230	0.00110
Lithium	mg/L	n/v	n/v	0.0294	0.0300	0.0282	0.0328	0.0029	0.0030	0.0042	0.0039
Magnesium	mg/L	n/v	n/v	99.4	87.4	87.8	91.6	35.9	16.8	15.6	18.2
Manganese	mg/L	n/v	0.2 ^B	3.92 ^{AB}	3.89 ^{AB}	4.23 ^B	4.48 ^B	10.7 ^{AB}	5.34 ^{AB}	5.44 ^B	5.10 ^B
Mercury	mg/L	0.000026 ^A	0.000026 _e ^B	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.000050	<0.0000050	<0.0000050
Molybdenum	mg/L	0.073 ^A	0.073 ^B	0.000656	0.000774	0.00117	0.00108	0.00223	0.00178	0.00178	0.00237
Nickel	mg/L	0.025/0.15 _{TBC1} A	0.025/0.15 _{e,d,TBC1} ^B	0.00219	0.00170	0.00147	0.00129	0.0336	0.0182	0.0152	0.0171
Phosphorus	mg/L	n/v	n/v	0.131	0.128	0.108	0.098	<0.100 DLA	<0.050	<0.100 DLA	<0.050
Potassium	mg/L	n/v	n/v	25.7	23.1	25.5	26.3	6.50	4.06	4.92	4.34
Rubidium	mg/L	n/v	n/v	0.00159	0.00148	0.00170	0.00175	0.00344	0.00210	0.00316	0.00337
Selenium	mg/L	0.001 ^A	0.001 ^B	0.000177	0.000186	0.000162	0.000162	0.000152	0.000092	0.000107	0.000135
Silicon Silver	mg/L	n/v 0.00025 ^A	n/v 0.00025 ^B	12.0 <0.000020 DLA	11.3 <0.000010	10.4 <0.000020 DLA	10.6 0.000011	6.80 0.000048	6.35 0.000027	8.03 0.000032	7.59 0.000031
Sodium	mg/L mg/L	0.00025 n/v	0.00025 n/v	120	113	113	122	43.1	17.1	15.4	18.1
Strontium	mg/L	n/v	n/v	2.16	2.25	2.20	2.24	0.604	0.424	0.427	0.447
Sulfur	mg/L	n/v	n/v	206	214	231	272	167	70.9	61.9	83.1
Tellurium	mg/L	n/v	n/v	<0.00040 DLA	0.00040	<0.00040 DLA	0.00031	<0.00040 DLA	<0.00020	<0.00040 DLA	<0.00020
Thallium	mg/L	0.0008 ^A	0.0008 ^B	<0.000020 DLA	<0.000010	<0.000020 DLA	<0.000010	<0.000020 DLA	<0.000010	<0.000020 DLA	<0.000010
Thorium	mg/L	n/v	n/v	<0.00020 DLA	<0.00010	<0.00020 DLA	0.00011	<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010
Tin	mg/L	n/v	n/v	<0.00020 DLA	<0.00010	<0.00020 DLA	0.00013	<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010
Titanium	mg/L	n/v	0.1 ^B	0.00141 DLM	<0.00180 DLM	<0.00180 DLM	<0.00240 DLM	<0.00060 DLA	0.00043	<0.00060 DLA	<0.00030
Tungsten	mg/L	n/v	n/v	<0.00020 DLA	0.00015	0.00044	0.00050	<0.00020 DLA	<0.00010	<0.00020 DLA	<0.00010
Uranium	mg/L	0.015 ^A	0.01 ^B	0.0121 ^B	0.0121 ^B	0.0118 ^B	0.0133 ^B	0.00148	0.000989	0.000730	0.00112
Vanadium	mg/L	n/v	0.1 ^B	0.00132	0.00122	0.00136	0.00166	<0.00100 DLA	<0.00050	<0.00100 DLA	<0.00050
Zinc	mg/L	n/v	0.01 ^B	<0.0060 DLA	<0.0030	<0.0060 DLA	<0.0030	0.0073	0.0046	<0.0060 DLA	0.0043
Zirconium See Notes on last page.	mg/L	n/v	n/v	0.00308	0.00343	<0.00320 DLM	0.00341	<0.00040 DLA	<0.00040 DLM	<0.00040 DLA	0.00023



Table B.3 **Summary of Groundwater Analytical Results** Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location					MW5 (SN	P 2016-7c)			MV	W6 (SN	NP 2016-7d)				MV
Sample Date				14-Jun-24	16-Jul-24	20-Aug-24	12-Sep-24		2-Jun-24	.		0-Jul-24)-Aug-24
Sample ID						GLG-2024-00003-005					GLG-2024-00002-006			GLG-2024-00003-006	
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC		NTEC			NTEC			NTEC
Laboratory				ALS	ALS	ALS	ALS		LS			LS			LS
Laboratory Work Order				YL2400673	YL2400921	YL2401240	YL2401501	YL24	00658		YL24	00874			01240
Laboratory Sample ID				YL2400673-005	YL2400921-001	YL2401240-001	YL2401501-005	YL2400658-005	YL2400658-006	RPD	YL2400874-005	YL2400874-006	RPD	YL2401240-002	YL2401240-003
Sample Type	Units	CCME	FIGQG						BFD	(%)		BFD	(%)		BFD
General Chemistry	<u> </u>				I										
,	mg/L	n/v	n/v	290	-	-	-	189	191	1%	168	167	1%	169	170
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	n/v	<1.0	-	-	-	<1.0	<1.0	nc	3.4	6.0	nc	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	n/v	<1.0 290	-	-	-	<1.0 189	<1.0	nc 1%	<1.0 171	<1.0 173	nc 10/	<1.0 169	<1.0 170
Alkalinity, Total	mg/L	n/v	n/v		AB	- a cooAB	-		191			· ·	1%		
Ammonia (as N)		0.0173/190 _{TBC2} ^A	0.0173/190 _{e,d,var3} ^B	0.105	0.396 ^{AB}	0.202 ^{AB}	0.0762	0.0098		39%	<0.0050	<0.0050	nc	0.0059	0.0116
Chloride	mg/L	120 ^A	100 ^B	4.03	-	-	-	0.84	0.81	4%	0.88	0.87	1%	1.09	1.03
Electrical Conductivity, Lab	μS/cm	n/v	n/v	1,200	-	- 	=	625	625	0%	570	570	0%	579	582
Hardness (as CaCO3), Dissolved	mg/L	n/v	n/v	654	-	1,060	-	332	322	3%	288	292	1%	300	301
Hardness (as CaCO3), Total	mg/L	n/v	n/v	613	1,320	1,090	1,230	-		-	312	296	5%	273	308
Nitrate	mg/L	13 ^A	13 ^B	0.801	-	-	-	12.2	12.1	1%	16.5 ^{AB}	16.4 ^{AB}	1%	20.1 ^{AB}	20.0 ^{AB}
Nitrate (as N)	mg/L	3.0 ^A	3 _{s12} ^B	0.181	-	-	-	2.76	2.73	1%	3.72 ^{AB}	3.71 ^{AB}	0%	4.54 ^{AB}	4.53 ^{AB}
Nitrate + Nitrite (as N)	mg/L	n/v	100 ^B	0.181	_	_	<u>-</u>	2.76	2.74	1%	3.72	3.71	0%	4.54	4.53
Nitrite	mg/L	0.197 _{n1} ^A	0.20 _{s13} ^B	< 0.0164	_	_	_	0.0167	0.0167	0%	0.0052	0.0046	12%	0.0157	0.0154
Nitrite (as N)		0.06 ^A	0.06 ^B	<0.0050 DLDS				0.0051	0.0051	0%	0.0016	0.0014	13%	0.0048	0.0047
, ,	mg/L				-	-	-	0.0051		24%	0.0016	0.0014	4%	0.0046	
Orthophosphate (as P)	mg/L	n/v	n/v	<0.0010	-	-	-								0.0074
pH, lab	S.U.	6.5-9.0 ^A	6.5-9 ^B	8.14	-	-	-	8.25	8.29	0%	8.36	8.39	0%	8.27	8.26
Phenolphthalein Alkalinity	mg/L	n/v	n/v	<1.0	- 0.400	- 0.005	-	<1.0	<1.0	nc	1.7	3.0	nc	<1.0	<1.0
Phosphorus, Total	mg/L	n/v	n/v	0.0388 400 ^B	0.109	0.0095	0.123	0.0206	0.0202 138 ^B	2%	0.0179 127^B	0.0176 127^B	2%	0.0179 121^B	0.0176
Sulfate	mg/L	n/v	100 ^B		-	-	-	139 ⁸		1%			0%		122 ^B
Total Dissolved Solids	mg/L	n/v	3,000 ^B	908	-	-	-	436	411	6%	395	420	6%	369	385
Total Organic Carbon	mg/L	n/v	n/v	4.75	7.72	7.37	9.62	3.74		24%	4.04	4.16	3%	4.46	4.05
Total Suspended Solids	mg/L	A SN	n/v	12.8	-	-	-	2.1	1.7	21%	<1.0	<1.0	nc	<1.0	<1.0
BTEX and Petroleum Hydrocarbo		^													
Benzene	μg/L	370 ^A	88 ^B	-	-	-	-	<0.50	<0.50	nc	<0.50	<0.50	nc	<0.50	<0.50
Toluene	μg/L	2 ^A	83 ^B	-	-	-	-	<0.50	<0.50	nc	< 0.50	<0.50	nc	< 0.50	<0.50
Ethylbenzene	μg/L	90 ^A	3,200 ^B	-	-	-	-	< 0.50	<0.50	nc	< 0.50	<0.50	nc	< 0.50	<0.50
Xylene, m & p-	μg/L	n/v	В s1	=	_	_	<u>-</u>	<0.50	<0.50	nc	< 0.40	<0.40	nc	< 0.50	<0.50
Xylene, o-	μg/L	n/v	В	_	_	_	_	<0.50	<0.50	nc	<0.30	<0.30	nc	<0.50	<0.50
•			s1						<0.75						<0.75
Xylenes, Total	μg/L	n/v	3,900 ^B	-	-	-	-0.50	<0.75		nc	<0.50	<0.50	nc	<0.75	\U./5
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	340 ^B	-	-	-	<0.50	-	-	-	<0.50	<0.50	nc	=	· -
Styrene	μg/L	72 ^A	72 ^B	-	-	-	<0.50	-	-	-	<0.50	<0.50	nc	-	-
PHC F1 (C6-C10 range)	μg/L	n/v	n/v	-	-	-	-	<100	<100	nc	<100	<100	nc	<100	<100
PHC F1 (C6-C10 range) minus BTE	μg/L	n/v	810 ^B	-	-	-	-	<100	<100	nc	<100	<100	nc	<100	<100
PHC F2 (>C10-C16 range)	μg/L	n/v	1,300 ^B	-	-	-	-	<100	<100	nc	<100	<100	nc	<100	<100
PHC F3 (>C16-C34 range)	μg/L	n/v	n/v	-	-	-	-	<250	<250	nc	<100	<100	nc	<250	<250
PHC F4 (>C34-C50 range)	μg/L	n/v	n/v	-	-	-	-	<250	<250	nc	<300	<300	nc	<250	<250
Total BTEX (Calc)	μg/L	n/v	n/v	-	-	-	-	<1.2	<1.2	nc	<300	<300	nc	<1.2	<1.2
Total Hydrocarbons (C6-C50)	μg/L	n/v	n/v	-	-	-	-	<400	<400	nc	<300	<300	nc	<400	<400
Metals, Dissolved	l n 1	/	T	000	1	004		445	424	40/	00.4	404	001	400	400
Calcium	mg/L	n/v	n/v	222	-	364	-	115	111	4%	99.4	101	2%	103	103
Magnesium Potassium	mg/L	n/v	n/v	24.1 10.8	-	37.5 14.6	-	10.8	10.9	1% 3%	9.61	9.74 1.76	1% 3%	10.4 1.72	10.6 1.80
Sodium	mg/L ma/L	n/v n/v	n/v n/v	29.9	-	45.2	-	2.10 3.41	2.03 3.30	3%	1.81 3.35	3.27	3% 2%	3.35	3.51
		11/1/	11/V	79.9	-	47/								1 17	. აე



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location					MW5 (SN	P 2016-7c)			MW	V6 (SN	NP 2016-7d)				MW
Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID				14-Jun-24 GLG-2024-00001-005 STANTEC ALS YL2400673 YL2400673-005	16-Jul-24	20-Aug-24	12-Sep-24 GLG-2024-00004-005 STANTEC ALS YL2401501 YL2401501-005	GLG-2024-00001-006 STAI A	NTEC LS 00658 YL2400658-006 I	RPD	GLG-2024-00002-006 STA A	10-Jul-24 GLG-2024-00002-019 NTEC LS 100874 YL2400874-006	RPD	GLG-2024-00003-006 STA A	0-Aug-24 GLG-2024-00003-019 NTEC LS 01240 YL2401240-003
Sample Type	Units	CCME	FIGQG						BFD	(%)		BFD	(%)		BFD
Metals, Total	•											'			
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.005/0.1 _{e,d,VAR1} ^B	0.0118	0.246 ^{AB}	0.0375	0.141 ^{AB}	0.0633	0.0552	14%	0.0053	0.0048	10%	0.0050	0.0048
Antimony	mg/L	n/v	2 ^B	0.00068	0.00114	0.00093	0.00069	0.00405	0.00405	0%	0.00488	0.00471	4%	0.00476	0.00510
Arsenic	mg/L	0.005 ^A	0.005 ^B	0.00760 ^{AB}	0.00757 ^{AB}	0.0155 ^{AB}	0.0202 ^{AB}	0.00419	0.00410	2%	0.00380	0.00379	0%	0.00416	0.00411
Barium	mg/L	n/v	0.5 ^B	0.0298	0.0643	0.0525	0.0563	0.0317	0.0316	0%	0.0255	0.0247	3%	0.0264	0.0263
Beryllium	mg/L	n/v	0.0053 ^B	<0.000100	<0.000100 DLA	<0.000100	<0.000100	<0.000020	<0.000020	nc	< 0.000100	<0.000100	nc	<0.000100	<0.000100
Bismuth	mg/L	n/v	n/v	<0.000050	<0.000100 DLA	<0.000100 DLA	<0.000100 DLA	<0.000050		nc	<0.000050	<0.000050	nc	<0.000050	<0.000050
Boron	mg/L	1.5 ^A	0.5 ^B	0.050	0.048	0.072	0.072	0.011	0.011	0%	0.010	<0.010	nc	<0.010	<0.010
Cadmium	mg/L	0.00009 _{LTG} ^A	0.00009 ₆ ^B	0.0000265	0.0000860	0.0000672	0.0000815	0.0000229		13%	0.0000154	0.0000129	18%	0.0000130	0.0000162
Calcium	mg/L	n/v	n/v	207	465	374	428	115		3%	109	103	6%	93.2	107
Cesium	mg/L	n/v	n/v	< 0.000010	<0.000020 DLA	<0.000020 DLA	<0.000020 DLA	< 0.000010		nc	< 0.000010	<0.000010	nc	<0.000010	<0.000010
Chromium	mg/L	n/v	0.0089 _e B	< 0.00050	0.00110	0.00141	0.00116	< 0.00050	<0.00050	nc	< 0.00050	<0.00050	nc	< 0.00050	<0.00050
Cobalt	mg/L	n/v	0.05 ^B	0.00648	0.0147	0.0118	0.0117	0.00044	0.00042	5%	0.00019	0.00019	0%	0.00021	0.00022
Copper	mg/L	0.002/0.004 _{TBC1} A	0.002/0.004 _{e,d,TBC1} ^B	0.00072	0.00195	0.00140	0.00184	0.00199		2%	0.00124	0.00122	2%	0.00135	0.00124
Iron	mg/L	0.3 ^A	0.3 ^B	5.18 ^{AB}	6.80 ^{AB}	7.70 ^{AB}	7.70 ^{AB}	0.242		8%	0.019	0.018	5%	0.021	0.024
	Ŭ		***	5.75				_							
Lead	mg/L	0.001/0.007 _{TBC1} ^A	0.001/0.007 _{e,d,TBC1} ^B	0.000233	0.00138	0.000340	0.00118	0.000188		4%	<0.000050	<0.000050	nc	0.000086	0.000071
Lithium Magnesium	mg/L	n/v n/v	n/v n/v	0.0027 23.4	0.0034 39.0	0.0038 37.7	0.0048 38.2	0.0019 11.4		5% 3%	0.0019 9.79	0.0018 9.55	5% 2%	0.0016 9.74	0.0019 9.92
Manganese	mg/L mg/L	n/v	0.2 ^B	0.944 ^{AB}	2.83 ^{AB}	1.67 ^B	1.73 ^B	0.0614		1%	0.0138	0.0134	3%	0.0148	0.0193
•			_	0.00	<0.0000050			_				<0.000050			<0.000050
Mercury	mg/L	0.000026 ^A	0.000026 _e ^B	<0.0000050		<0.000050	<0.0000050	<0.0000050		nc	<0.0000050		nc	<0.0000050	
Molybdenum	mg/L	0.073 ^A	0.073 ^B	0.00144	0.00956	0.00351	0.00412	0.00470		1%	0.00626	0.00609	3%	0.00620	0.00654
Nickel	mg/L	0.025/0.15 _{TBC1} ^A	0.025/0.15 _{e,d,TBC1} ^B	0.00895	0.0291	0.0116	0.0118	0.00314		4%	0.00214	0.00203	5%	0.00216	0.00217
Phosphorus	mg/L	n/v	n/v	0.051	0.113	<0.100 DLA	0.118	<0.050		nc	<0.050	<0.050	nc	<0.050	<0.050
Potassium Rubidium	mg/L	n/v	n/v	10.9 0.00140	14.2 0.00275	15.4 0.00261	14.9 0.00317	2.05 0.00114		0% 3%	1.71 0.00111	1.66 0.00102	3% 8%	1.79 0.00116	1.76 0.00113
Selenium	mg/L mg/L	n/v 0.001 ^A	n/v 0.001 ^B	0.00140	0.00275	0.00261	0.00317	0.00114 0.00166 ^{AB}		16%	0.00111	0.00102 0.00186 ^{AB}	2%	0.00116 0.00199 ^{AB}	0.00113
Silicon	mg/L	0.001 n/v	0.001 n/v	6.22	5.87	8.45	8.09	5.05		3%	4.90	4.87	1%	5.13	4.83
Silver	mg/L	0.00025 ^A	0.00025 ^B	<0.000010	0.000069	<0.000020 DLA	0.000062	0.000014		nc	<0.000010	<0.000010	nc	<0.000010	<0.000010
Sodium	mg/L	0.00025 n/v	0.00025 n/v	30.2	41.3	47.7	45.8	3.67		2%	3.42	3.39	1%	3.45	3.48
Strontium	mg/L	n/v	n/v	0.958	1.96	1.82	1.78	0.364		1%	0.359	0.352	2%	0.332	0.358
Sulfur	mg/L	n/v	n/v	151	387	313	331	50.1		2%	45.3	45.4	0%	44.7	41.9
Tellurium	mg/L	n/v	n/v	< 0.00020	<0.00040 DLA	<0.00040 DLA	<0.00040 DLA	<0.00020	<0.00020	nc	<0.00020	<0.00020	nc	<0.00020	<0.00020
Thallium	mg/L	0.0008 ^A	0.0008 ^B	0.000017	<0.000020 DLA	0.000031	<0.000020 DLA	<0.000010	<0.000010	nc	0.000010	0.000010	0%	<0.000010	0.000014
Thorium	mg/L	n/v	n/v	<0.00010	<0.00020 DLA	<0.00020 DLA	<0.00020 DLA	<0.00010		nc	<0.00010	<0.00010	nc	<0.00010	<0.00010
Tin	mg/L	n/v	n/v	<0.00010	0.00062	<0.00020 DLA	0.00344	0.00045		9%	<0.00010	<0.00010	nc	<0.00010	<0.00010
Titanium	mg/L	n/v	0.1 ^B	<0.00060 DLM	<0.00480 DLM	<0.00090 DLM	<0.00330 DLM	0.00240 DLM		9%	<0.00030	<0.00030	nc	<0.00030	<0.00030
Tungsten	mg/L	n/v	n/v	<0.00010	<0.00020 DLA	<0.00020 DLA	<0.00020 DLA	<0.00010		nc	<0.00010	<0.00010	nc	<0.00010	<0.00010
Uranium	mg/L	0.015 ^A	0.01 ^B	0.00379	0.0181 ^{AB}	0.0113 ^B	0.0131 ^B	0.00342		1%	0.00328	0.00322	2%	0.00275	0.00290
Vanadium	mg/L	n/v	0.1 ^B	<0.00050	0.00103	<0.00100 DLA	<0.00100 DLA	<0.00050		nc	<0.00050	<0.00050	nc	<0.00050	<0.00050
Zinc	mg/L	n/v	0.01 ^B	<0.0030	0.0064	<0.0060 DLA	<0.0060 DLA	0.0085		2%	<0.0030	<0.0030	nc	<0.0030	<0.0030
Zirconium See Notes on last page.	mg/L	n/v	n/v	<0.00040 DLM	0.00051	<0.00040 DLA	<0.00040 DLA	<0.00020	<0.00020	nc	<0.00020	<0.00020	nc	<0.00020	<0.00020



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				3 (SNI	P 2016-7d)			l	Field	l Blank	
Sample Date Sample ID Sampling Company					12 GLG-2024-00004-006 STAI	2-Sep-24 GLG-2024-00004-019 NTEC		STANTEC	11-Jul-24 GLG-2024-00002-023 STANTEC	22-Aug-24 GLG-2024-00003-023 STANTEC	11-Sep-24 GLG-2024-00004-023 STANTEC
Laboratory						LS		ALS	ALS	ALS	ALS
Laboratory Work Order				DDD		01501	DDD	YL2400658	YL2400890	YL2401272	YL2401469
Laboratory Sample ID Sample Type	Units	ССМЕ	FIGQG	RPD (%)	YL2401501-006	YL2401501-011 BFD	RPD (%)	YL2400658-008 Field Blank	YL2400890-007 Field Blank	YL2401272-008 Field Blank	YL2401469-008 Field Blank
Sample Type	Ullits	CONL	11000	(/0)		ט וט	(/0)	i ielu bialik	I Ielu Dialik	i leiu bialik	i leid Blatik
General Chemistry											
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	n/v	1%	167	169	1%	-	-	-	-
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	n/v	nc	2.8	4.0	35%	=	-	-	=
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	n/v	nc	<1.0	<1.0	nc	-	-	-	-
Alkalinity, Total	mg/L	n/v	n/v	1%	170	173	2%	-	-	-	-
Ammonia (as N)	mg/L	0.0173/190 _{TBC2} A	0.0173/190 _{e,d,var3}	nc	0.0064	0.0054	17%	-	-	-	-
Chloride	mg/L	120 ^A	100 ^B	6%	0.88	0.88	0%	-	-	-	=
Electrical Conductivity, Lab	μS/cm	n/v	n/v	1%	578	564	2%	-	-	-	-
Hardness (as CaCO3), Dissolved	mg/L	n/v	n/v	0%	306	289	6%	-	-	-	-
Hardness (as CaCO3), Total	mg/L	n/v	n/v	12%	287	298	4%	-	-	-	-
Nitrate	mg/L	13 ^A	13 ^B	0%	21.0 ^{AB}	21.0 ^{AB}	0%	-	-	-	-
Nitrate (as N)	mg/L	3.0 ^A	3 _{s12} ^B	0%	4.74 ^{AB}	4.74 ^{AB}	0%	-	-	-	-
Nitrate + Nitrite (as N)	mg/L	n/v	100 ^B	0%	4.74	4.74	0%	-	-	-	-
Nitrite	mg/L	0.197 _{n1} A	0.20 _{s13} ^B	2%	0.0095	0.0072	28%	=	_	<u>-</u>	=
Nitrite (as N)	mg/L	0.06 ^A	0.06 ^B	2%	0.0029	0.0022	27%	_	_	_	_
Orthophosphate (as P)	mg/L	n/v	n/v	10%	0.0132	0.0134	2%	_	_	_	_
pH, lab	S.U.	6.5-9.0 ^A	6.5-9 ^B	0%	8.31	8.35	0%	_	_	_	_
Phenolphthalein Alkalinity	mg/L	n/v	n/v	nc	1.4	2.0	35%	_	_	_	_
Phosphorus, Total	mg/L	n/v	n/v	2%	0.0228	0.0225	1%	_	_	_	_
Sulfate	mg/L	n/v	100 ^B	1%	122 ^B	118 ^B	3%	_	_	_	_
Total Dissolved Solids	mg/L	n/v	3,000 ^B	4%	401	416	4%	_	_	_	_
Total Organic Carbon	mg/L	n/v	0,000 n/v	10%	2.94	2.84	3%	_	_	_	_
Total Suspended Solids	mg/L	A SN	n/v	nc	<1.0	<1.0	nc	_	_	_	_
BTEX and Petroleum Hydrocarbo	•	SN	11/ V	110	11.0	11.0	110				
Benzene	μg/L	370 ^A	88 ^B	nc	<0.50	<0.50	nc	<0.50	<0.50	<0.50	<0.50
Toluene	μg/L	2 ^A	83 ^B	nc	<0.50	<0.50	nc	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	μg/L	90 ^A	3,200 ^B	nc	<0.50	<0.50	nc	<0.50	<0.50	<0.50	<0.50
•			3,200 B								
Xylene, m & p-	μg/L	n/v	s1 B	nc	<0.50	<0.50	nc	<0.50	<0.40	<0.50	<0.50
Xylene, o-	μg/L	n/v	s1	nc	<0.50	<0.50	nc	<0.50	<0.30	<0.50	<0.50
Xylenes, Total	μg/L	n/v	3,900 ^B	nc	<0.75	<0.75	nc	<0.75	<0.50	<0.75	<0.75
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	340 ^B	-	-	-	-	-	<0.50	-	-
Styrene	μg/L	72 ^A	72 ^B	-	-	-	-	-	<0.50	-	-
PHC F1 (C6-C10 range)	μg/L	n/v	n/v	nc	<100	<100	nc	<100	<100	<100	<100
PHC F1 (C6-C10 range) minus BTE		n/v	810 ^B	nc	<100	<100	nc	<100	<100	<100	<100
PHC F2 (>C10-C16 range)	μg/L	n/v	1,300 ^B	nc	<100	<100	nc	<100	<100	<100	<100
PHC F3 (>C16-C34 range)	μg/L	n/v	n/v	nc	<250	<250	nc	<250	<100	<250	<250
PHC F4 (>C34-C50 range)	μg/L	n/v	n/v	nc	<250	<250	nc	<250	<300	<250	<250
Total BTEX (Calc)	μg/L	n/v	n/v	nc	<1.2	<1.2	nc	<1.2	<300	<1.2	<1.2
Total Hydrocarbons (C6-C50)	μg/L	n/v	n/v	nc	<400	<400	nc	<400	<300	<400	<400
Metals, Dissolved											
Calcium	mg/L	n/v	n/v	0%	106	99.7	6%	-	-	-	=
Magnesium	mg/L	n/v	n/v	2%	9.97	9.80	2%	-	-	-	-
Potassium	mg/L	n/v	n/v	5%	1.58	1.56	1%	-	-	-	=
Sodium See Notes on last page.	mg/L	n/v	n/v	5%	3.50	3.47	1%	-	-	-	-



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				3 (SNI	P 2016-7d)				Field	Blank	
Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID				RPD	12 GLG-2024-00004-006 STA A	2-Sep-24 GLG-2024-00004-019 NTEC LS 01501 YL2401501-011	RPD	12-Jun-24 GLG-2024-00001-023 STANTEC ALS YL2400658 YL2400658-008	11-Jul-24 GLG-2024-00002-023 STANTEC ALS YL2400890 YL2400890-007	22-Aug-24 GLG-2024-00003-023 STANTEC ALS YL2401272 YL2401272-008	11-Sep-24 GLG-2024-00004-023 STANTEC ALS YL2401469 YL2401469-008
Sample Type	Units	ССМЕ	FIGQG	(%)	1 L240 130 1-000	BFD	(%)	Field Blank	Field Blank	Field Blank	Field Blank
Metals, Total											
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.005/0.1 _{e,d,VAR1} ^B	4%	0.0086	0.0097	12%	-	-	-	-
Antimony	mg/L	n/v	2 ^B	7%	0.00534	0.00534	0%	-	-	-	-
Arsenic	mg/L	0.005 ^A	0.005 ^B	1%	0.00462	0.00455	2%	-	-	-	-
Barium	mg/L	n/v	0.5 ^B	0%	0.0243	0.0245	1%	-	-	-	-
Beryllium	mg/L	n/v	0.0053 ^B	nc	<0.000100	<0.000100	nc	-	-	-	-
Bismuth	mg/L	n/v	n/v	nc	<0.000050	<0.000050	nc	-	-	-	-
Boron	mg/L	1.5 ^A	0.5 ^B	nc	<0.010	<0.010	nc	-	-	-	-
Cadmium	mg/L	0.00009 _{LTG} ^A	0.00009 _c ^B	22%	0.0000199	0.0000196	2%	-	-	-	-
Calcium	mg/L	n/v	n/v	14%	98.6	103	4%	-	-	-	-
Cesium	mg/L	n/v	n/v	nc	<0.000010	<0.000010	nc	-	-	-	-
Chromium	mg/L	n/v	0.0089 _e ^B	nc	<0.00050	<0.00050	nc	-	-	-	-
Cobalt	mg/L	n/v	0.05 ^B	5%	0.00021	0.00024	13%	-	-	=	-
Copper	mg/L	0.002/0.004 _{TBC1} A	0.002/0.004 _{e,d,TBC1} B	8%	0.00126	0.00131	4%	-	-	-	-
Iron	mg/L	0.3 ^A	0.3 ^B	13%	0.025	0.028	11%	-	_	<u>-</u>	-
Lead	mg/L	0.001/0.007 _{TBC1} A	0.001/0.007 _{e,d,TBC1} ^B	19%	<0.000050	0.000053	nc	-	_	_	_
Lithium	mg/L	n/v	n/v	17%	0.0019	0.0020	5%	_	_	_	_
Magnesium	mg/L	n/v	n/v	2%	9.93	10.0	1%	-	-	-	-
Manganese	mg/L	n/v	0.2 ^B	26%	0.0121	0.0131	8%	-	-	-	-
Mercury	mg/L	0.000026 ^A	0.000026 _e ^B	nc	<0.000050	<0.000050	nc	-	-	-	-
Molybdenum	mg/L	0.073 ^A	0.073 ^B	5%	0.00705	0.00695	1%	-	_	<u>-</u>	-
Nickel	mg/L	0.025/0.15 _{TBC1} ^A	0.025/0.15 _{e,d,TBC1} ^B	0%	0.00254	0.00260	2%	<u>-</u>	_	_	_
Phosphorus	mg/L	n/v	n/v	nc	<0.050	0.051	nc	_	_	_	_
Potassium	mg/L	n/v	n/v	2%	1.62	1.62	0%	-	-	-	-
Rubidium	mg/L	n/v	n/v	3%	0.00132	0.00122	8%	-	-	=	-
Selenium	mg/L	0.001 ^A	0.001 ^B	15%	0.00194 ^{AB}	0.00202 ^{AB}	4%	-	-	-	-
Silicon	mg/L	n/v	n/v	6%	5.00	5.29	6%	-	-	-	-
Silver	mg/L	0.00025 ^A	0.00025 ^B	nc	<0.000010	<0.000010	nc	=	-	=	=
Sodium	mg/L	n/v	n/v	1%	3.89	3.84	1%	-	-	-	-
Strontium Sulfur	mg/L	n/v n/v	n/v n/v	8% 6%	0.341 41.3	0.341 43.1	0% 4%	-	-	-	-
Tellurium	mg/L mg/L	n/v	n/v	nc	<0.00020	<0.00020	nc	-	-	- -	- -
Thallium	mg/L	0.0008 ^A	0.0008 ^B	nc	<0.00010	<0.00010	nc	_	_	_	_
Thorium	mg/L	n/v	n/v	nc	<0.00010	<0.00010	nc	-	_	-	_
Tin	mg/L	n/v	n/v	nc	<0.00010	<0.00010	nc	-	_	-	-
Titanium	mg/L	n/v	0.1 ^B	nc	<0.00030	<0.00030	nc	-	-	-	-
Tungsten	mg/L	n/v	n/v	nc	<0.00010	<0.00010	nc	-	-	-	-
Uranium	mg/L	0.015 ^A	0.01 ^B	5%	0.00289	0.00293	1%	-	-	-	-
Vanadium	mg/L	n/v	0.1 ^B	nc	<0.00050	<0.00050	nc	-	-	-	-
Zinc	mg/L	n/v	0.01 ^B	nc	<0.0030	<0.0030	nc	-	-	-	-
Zirconium	mg/L	n/v	n/v	nc	<0.00020	<0.00020	nc	-	<u>-</u>	<u>-</u>	



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location					Trip	Blank	
Sample Date				12-Jun-24	11-Jul-24	22-Aug-24	11-Sep-24
Sample ID				GLG-2024-00001-022	GLG-2024-00002-022	GLG-2024-00003-022	GLG-2024-00004-022
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				ALS	ALS	ALS	ALS
Laboratory Work Order				YL2400658	YL2400890	YL2401272	YL2401469
Laboratory Sample ID				YL2400658-007	YL2400890-008	YL2401272-007	YL2401469-007
Sample Type	Units	ССМЕ	FIGQG	Trip Blank	Trip Blank	Trip Blank	Trip Blank
General Chemistry							
<u> </u>	/1		h -				
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	n/v	-	-	-	-
Alkalinity, Carbonate (as CaCO3) Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	n/v n/v	-	-	-	-
Alkalinity, Total	mg/L mg/L	n/v n/v	n/v	-	-	-	-
•	-	0.0173/190 _{TBC2} A		-	-	-	-
Ammonia (as N)	mg/L		0.0173/190 _{e,d,var3} B	-	-	-	-
Chloride	mg/L	120 ^A	100 ^B	-	-	-	-
Electrical Conductivity, Lab	μS/cm	n/v	n/v	-	-	-	-
Hardness (as CaCO3), Dissolved	mg/L	n/v	n/v	-	-	-	-
Hardness (as CaCO3), Total	mg/L	n/v	n/v	_	-	<u>-</u>	-
Nitrate	mg/L	13 ^A	13 ^B	-	-	-	-
Nitrate (as N)	mg/L	3.0 ^A	3 _{s12} ^B	-	-	-	-
Nitrate + Nitrite (as N)	mg/L	n/v	100 ^B	-	-	-	-
Nitrite	mg/L	0.197 _{n1} A	0.20 _{s13} B	-	<u>-</u>	-	-
Nitrite (as N)	mg/L	0.06 ^A	0.06 ^B	_	<u>-</u>	_	_
Orthophosphate (as P)	mg/L	n/v	n/v	_	<u>-</u>	_	_
pH, lab	S.U.	6.5-9.0 ^A	6.5-9 ^B	_	_	_	_
Phenolphthalein Alkalinity	mg/L	n/v	n/v	_	_	_	_
Phosphorus, Total	mg/L	n/v	n/v	_	<u>-</u>	_	_
Sulfate	mg/L	n/v	100 ^B	_	_	_	_
Total Dissolved Solids	mg/L	n/v	3,000 ^B				
	•	•		-	-	-	-
Total Organic Carbon	mg/L	n/v A	n/v	-	-	-	-
Total Suspended Solids BTEX and Petroleum Hydrocarbo	mg/L	SN	n/v	-	-	-	-
Benzene	μg/L	370 ^A	88 ^B	<0.50	<0.50	<0.50	<0.50
Toluene	μg/L	2 ^A	83 ^B	< 0.50	<0.50	<0.50	<0.50
Ethylbenzene	μg/L	90 ^A	3,200 ^B	<0.50	<0.50	<0.50	<0.50
Xylene, m & p-	μg/L	n/v	B s1	< 0.50	<0.40	<0.50	<0.50
Xylene, o-	μg/L	n/v	B s1	<0.50	<0.30	<0.50	<0.50
Xylenes, Total	μg/L	n/v	3,900 ^B	<0.75	<0.50	<0.75	<0.75
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	3,900 340 ^B	10.70	<0.50	40.70	30.70
				-		-	-
Styrene	μg/L	72 ^A	72 ^B	-400	<0.50	-	-400
PHC F1 (C6-C10 range)	μg/L	n/v	n/v	<100	<100	<100	<100
PHC F1 (C6-C10 range) minus BTE		n/v	810 ^B	<100	<100	<100	<100
PHC F2 (>C10-C16 range)	μg/L	n/v	1,300 ^B	<100	<100	<100	<100
PHC F3 (>C16-C34 range)	μg/L	n/v	n/v	<250	<100	<250	<250
PHC F4 (>C34-C50 range)	μg/L	n/v	n/v	<250	<300	<250	<250
Total BTEX (Calc)	μg/L	n/v	n/v	<1.2	<300	<1.2	<1.2
Total Hydrocarbons (C6-C50) Metals, Dissolved	μg/L	n/v	n/v	<400	<300	<400	<400
·	,	,	,				
Calcium	mg/L	n/v	n/v	-	-	-	-
Magnesium	mg/L	n/v	n/v	-	-	<u>-</u>	-
Potassium Sodium	mg/L mg/L	n/v n/v	n/v	- -	-	_ -	_
See Notes on last page.	mg/L	11/V	n/v	-	-	<u>-</u>	-



Table B.3
Summary of Groundwater Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location					Trip	Blank	
Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	ССМЕ	FIGQG	12-Jun-24 GLG-2024-00001-022 STANTEC ALS YL2400658 YL2400658-007 Trip Blank	11-Jul-24	22-Aug-24 GLG-2024-00003-022 STANTEC ALS YL2401272 YL2401272-007 Trip Blank	11-Sep-24 GLG-2024-00004-022 STANTEC ALS YL2401469 YL2401469-007 Trip Blank
Metals, Total			L				
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.005/0.1 _{e,d,VAR1} ^B	-	-	-	-
Antimony	mg/L	n/v	2 ^B	-	<u>-</u>	-	-
Arsenic	mg/L	0.005 ^A	0.005 ^B	-	_	_	_
Barium	mg/L	n/v	0.5 ^B	_	_	_	_
Beryllium	mg/L	n/v	0.0053 ^B	_	_	_	_
Bismuth	mg/L	n/v	0.0053 n/v	_	_	_	
Boron	mg/L	1.5 ^A	0.5 ^B	_	_	- -	<u> </u>
	-			_	_	_	_
Cadmium	mg/L	0.00009 _{LTG} ^A	0.00009 _c ^B	-	-	-	-
Calcium Cesium	mg/L	n/v	n/v n/v	-	-	-	-
Chromium	mg/L	n/v n/v	0.0089 _e ^B	-	-	-	-
	mg/L			-	-	-	-
Cobalt	mg/L	n/v	0.05 ^B	-	-	-	-
Copper	mg/L	0.002/0.004 _{TBC1} ^A	0.002/0.004 _{e,d,TBC1} ^B	-	-	-	-
Iron	mg/L	0.3 ^A	0.3 ^B	-	-	-	-
Lead	mg/L	0.001/0.007 _{TBC1} A	0.001/0.007 _{e,d,TBC1} ^B	-	-	-	-
Lithium	mg/L	n/v	n/v	-	-	-	-
Magnesium	mg/L	n/v	n/v	-	-	-	-
Manganese	mg/L	n/v	0.2 ^B	-	-	-	-
Mercury	mg/L	0.000026 ^A	0.000026 _e B	-	<u>-</u>	-	-
Molybdenum	mg/L	0.073 ^A	0.073 ^B	_	_	_	_
Nickel	mg/L	0.025/0.15 _{TBC1} ^A	0.025/0.15 _{e,d,TBC1} ^B	_	<u>_</u>	_	_
Phosphorus	mg/L	n/v	n/v	_	_	_	_
Potassium	mg/L	n/v	n/v	_	_	_	_
Rubidium	mg/L	n/v	n/v	_	_	_	_
Selenium	mg/L	0.001 ^A	0.001 ^B	_	_	_	_
Silicon	mg/L	n/v	n/v	_	_	_	_
Silver	mg/L	0.00025 ^A	0.00025 ^B	_	_	_	_
Sodium	mg/L	n/v	n/v	_	_	_	_
Strontium	mg/L	n/v	n/v	-	-	-	<u>-</u>
Sulfur	mg/L	n/v	n/v	-	-	-	-
Tellurium	mg/L	n/v	n/v	-	-	-	-
Thallium	mg/L	0.0008 ^A	0.0008 ^B	-	-	-	-
Thorium	mg/L	n/v	n/v	-	-	-	-
Tin	mg/L	n/v	n/v	-	-	-	-
Titanium	mg/L	n/v	0.1 ^B	-	-	-	-
Tungsten	mg/L	n/v	n/v	-	-	-	-
Uranium	mg/L	0.015 ^A	0.01 ^B	-	-	-	-
Vanadium	mg/L	n/v	0.1 ^B	-	-	-	<u>-</u>
Zinc	mg/L	n/v	0.01 ^B	-	-	-	-
Zirconium	mg/L	n/v	n/v				<u>-</u>
See Notes on last page.	-						



Table B.3 Summary of Groundwater Analytical Results Gordon Lake Group Sites Long-Term Monitoring Year 6

Notes:

CCME Canadian Council of Ministers of the Environment

Canadian Environmental Quality Guidelines, Canadian Water Quality Guidelines for the Protection of Aquatic Life - Freshwater Aquatics Long Term

FIGQG Guidance Document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites (Government of Canada, June 2016 (version 4) revised November 2016)

Table 1 Federal Interim Groundwater Guidelines - Generic Guidelines for Agricultural Use - (Tier 1) Lowest Guideline - Coarse

6.5^A Concentration exceeds the indicated standard.

15.2 Measured concentration did not exceed the indicated standard.

< 0.50 Laboratory reporting limit was greater than the applicable standard.

< 0.03 Analyte was not detected at a concentration greater than the laboratory reporting limit.

n/v No standard/guideline value.

Parameter not analyzed / not available.

Hardness dependent guideline; if hardness of receiving surface water is available can be calculated as 10^{0.83(log[hardness])-2.46}

The freshwater aquatic life guidelines vary depending on water pH, hardness etc. Therefore, see Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME 1999) to determine the appropriate water quality guideline applicable to the site and calculate the groundwater guidelines using formulas provided in Appendix B.

e Guideline is the lowest of all applicable pathways.

The CWQG for cadmium (i.e. long-term guideline) of 0.09 μ g·L-1 is for waters of 50 mg CaCO3·L-1 hardness. The CWQG for cadmium is related to water hardness (as CaCO3): When the water hardness is > 0 to < 17 mg/L, the CWQG is 0.04 μ g/L; at hardness ≥ 17 to ≤ 280 mg/L, the CWQG is calculated using this equation (CWQG (μ g/L) = 10^{0.83}(log[hardness]) – 2.46 }); At hardness > 280 mg/L, the CWQG is 0.37 μ g/L.

Guideline is expressed as Nitrite (as N) in ug/L. This value is equivalent to 197 ug/L for Nitrite.

Standard is applicable to total xylenes, and m & p-xylenes and o-xylenes should be summed for comparison.

s12 Added for Nitrate-N as guideline only present for Nitrate. Divided the Nitrate guideline by 4.4.

s13 Guidelines only provided for Nitrite (as N). Nitrite guideline (as NO2) is calculated by multiplying the Nitrite (as N) guideline by 3.29.

Narrative: Clear flow - Maximum increase of 25 mg/L from background levels for any short-term exposure (e.g., 24-h period). Maximum average increase of 5 mg/L from background levels for longer term exposures (e.g., inputs lasting between 24 h and 30 d).

High flow - Maximum increase of 25 mg/L from background levels at any time when background levels are between 25 and 250 mg/L. Should not increase more than 10% of background levels when background is ≥ 250 mg/L.

TBC1 Value is minimum value available. Sample-specific value to be calculated (equation).

TBC2 To be calculated (equation), then the present guideline values (mg/L NH3) can be converted to mg/L total ammonia-N by multiplying the corresponding guideline value by 0.8224.

Variable, 5 μ g/L if pH < 6.5 and 100 μ g/L if pH > 6.5

var3 Ammonia is pH and temperature dependent, see CCME guidelines for further instructions. CCME provides the guideline as ammonia (as NH3), and was converted to ammonia (as N) by multiplying the guideline by 0.8224.

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)

BFD Blind Field Duplicate

RPD Relative Percent Difference.

61% RPD exceeds data quality objective of 40%.

nc RPD is not calculated if one or more values is not detected or if one or more values is less than five times the reportable detection limit.



Table B.4
Summary of In-situ Surface Water Quality Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample ID / LTM Station	Sample Control Number	Sample Date	Easting	Northing	Temperature	Conductivity	Specific Conductance	TDS	Turbidity	Dissovle	d Oxygen	рН	ORP	Sample Comments & Observations
	•	(DD-MMM-YY)	N/	AD83	(°C)	(µS/cm)	(µS/cm)	mg/L	(NTU)	(%)	(mg/L)	F	S.u.	
	GLG-2024-00001-009	13-Jun-24			14.5	79.4	99.4	64	0.31	123.5	12.59	8.26	86.7	None
SNP2016-11a	GLG-2024-00002-009	11-Jul-24	390881	6994592	105.1	0.089	105.1	-	0.00	-	10.55	8.28	34.5	None
3N1 2010-11a	GLG-2024-00003-009	22-Aug-24	330001	0994392	14.9	86.6	107.5	-	0.00	-	10.66	7.9	90.0	None
	GLG-2024-00004-009	11-Sep-24			11.5	137.9	113.6	-	176.59	-	11.8	8.02	136.1	None
	GLG-2024-00001-010	14-Jun-24			10.2	73.1	102.1	66	0.36	114	12.86	7.89	78.4	None
SNP2016-11b1 GLG-202	GLG-2024-00002-010	10-Jul-24	388174	6986093	17.1	0.087	102.8	67	0.58	-	10.69	8.22	6.7	None
ON 2010-11D1	GLG-2024-00003-010	20-Aug-24	300174	0900093	16.4	83.3	99.6	-	0.00	-	11.32	8.08	63.8	None
	GLG-2024-00004-010	12-Sep-24			11.8	82.6	110.4	-	176.58	-	11.22	7.85	106.8	None
	GLG-2024-00001-011	14-Jun-24]		10.9	74.5	101.9	66	0.16	117.6	13.00	7.83	122.2	None
GL	GLG-2024-00002-011	10-Jul-24	388365	6985917	16.9	0.087	103.3	67	0.66	-	10.48	7.98	-41.2	None
	GLG-2024-00003-011	20-Aug-24	300303	0300311	16.9	84.1	99.4	-	*	-	11.10	8.14	20.9	None
	GLG-2024-00004-011	12-Sep-24			12.4	83.2	109.6	-	176.59	-	11.28	7.81	122.7	None
	GLG-2024-00001-012	14-Jun-24			13.5	83.1	106.4	69	1.49	118.8	12.37	7.75	110.2	None
SNP2016-11b3	GLG-2024-00002-012	10-Jul-24	388376	6006145	18.7	0.092	104.8	68	0.21	-	10.86	8.43	-37.8	None
	GLG-2024-00003-012	20-Aug-24		6986145	16.7	85.7	99.3	-	*	-	11.22	8.16	47.4	None
	GLG-2024-00004-012	12-Sep-24			11.9	84.9	113.2	-	175.05	-	11.39	7.70	32.2	None
	GLG-2024-00001-013	14-Jun-24	388174		10.4	75.2	104.1	68	1.20	116.2	12.96	7.94	41.9	None
	GLG-2024-00002-013	10-Jul-24		0005000	17.1	0.090	105.6	-	0.00	-	10.54	8.33	-1.1	None
SNP2016-11b4	GLG-2024-00003-013	20-Aug-24		6985898	16.4	82.7	99.0	-	*	-	11.37	8.12	65.8	None
	GLG-2024-00004-013	12-Sep-24			12.6	84.2	110.3	-	176.54	-	11.12	8.13	-29.7	None
	GLG-2024-00001-014	13-Jun-24			10.9	73.9	101.2	66	0.28	120.8	13.37	7.99	97.8	None
	GLG-2024-00002-014	11-Jul-24	1		18.8	0.087	102.8	-	0.00	-	10.90	8.16	32.5	None
SNP2016-11c	GLG-2024-00003-014	22-Aug-24	386768	6985533	14.6	83.3	104.0	-	0.00	-	11.03	8.03	90.0	None
	GLG-2024-00004-014	11-Sep-24			11.5	81.4	109.7	-	176.62	_	11.60	7.99	118.0	None
	GLG-2024-00001-015	13-Jun-24			14.6	147.0	183.4	119	12.50	88.2	8.97	7.66	-23.0	None
	GLG-2024-00001-015	11-Jul-24	1		16.4	0.153	183.6	-	6.98	-	1.76	6.84	-36.5	None
SNP2016-11d	GLG-2024-00003-015	22-Aug-24	381650	6982714	10.3	150.7	209.9	-	638.89		5.12	6.93	-65.9	Multi-parameter probe sank into organic detritus
	GLG-2024-00004-015	11-Sep-24	1		7.5	137.9	206.8	-	169.54		9.64	7.56	65.4	None
	GLG-2024-00001-016	13-Jun-24			11.7	73.8	99	64	0.16	116.6	12.65	8.28	76.1	None
	GLG-2024-00001-016	11-Jul-24	1		16.9	0.086	102.2	-	3.08	-	10.57	7.95	30.6	None
SNP2016-11e	GLG-2024-00002-010	22-Aug-24	381411	6981168	15.0	85.0	105.0	-	0.00	-	10.78	7.93	39.7	None
	GLG-2024-00003-016	11-Sep-24	1		12.1	83.9	111.2	+ -	176.62		11.47	7.76	93.4	None
	GLG-2024-00004-010	13-Jun-24			14.1	81.0	102.2	66	1.89	120.5	12.37	8.03	129.7	None
	GLG-2024-00001-017 GLG-2024-00002-017	11-Jul-24	1		18.8	0.091	103.3		0.00	-	11.07	8.23	38.9	None
SNP2016-11f	GLG-2024-00003-017	22-Aug-24	386542	6978365	14.2	82.3	103.7	+	0.00		11.48	8.22	73.7	None
	GLG-2024-00003-017 GLG-2024-00004-017	11-Sep-24	1		11.9	81.7	109.0	+	176.48	<u> </u>	11.48	8.05	114.7	None
	GLG-2024-00001-020	13-Jun-24	1		14.5	79.4	99.4	64	0.31	123.5	12.59	8.26	86.7	None
	GLG-2024-00001-020	11-Jul-24	-		105.1	0.089	105.1	04	0.00	-	10.55	8.28	34.5	None
Judiicate (SNP2016-11a) —	GLG-2024-00002-020	22-Aug-24	390881	6994592	14.9	86.6	107.5	+-	0.00	<u> </u>	10.55	7.90	90.0	None
	GLG-2024-00003-020 GLG-2024-00004-020	22-Aug-24 11-Sep-24	1		14.9	137.9	113.6	+-	176.59		11.8	7.90 8.02	136.1	None
	GLG-2024-00004-020	11-3ep-24		<u> </u>	11.5	137.9	113.0	_	170.09	-	11.0	0.02	130.1	INOTIC

Notes:

°C Degree Celsius

μS/cm Microsiemens per centimetre

mg/L Milligram per litre

NTU Nephelometric Turbidity Unit

mV Millivolt

ORP Oxidation/ Reduction Potential

TDS Total Dissolved Soilds



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location		l					SI	NP 201	l6-11a					
Sample Date			1	3-Jun-24		11	l-Jul-24			-Aug-24		11	-Sep-24	
Sample ID			GLG-2024-00001-009	GLG-2024-00001-020		GLG-2024-00002-009	GLG-2024-00002-020		GLG-2024-00003-009			GLG-2024-00004-009		0
Sampling Company				ANTEC		STAN				NTEC		STAN		
Laboratory				ALS		AL			AL			AL		
Laboratory Work Order				400666		YL240				01272		YL240		
Laboratory Sample ID			YL2400666-003	YL2400666-004	RPD	YL2400890-001	YL2400890-002	RPD		YL2401272-006	RPD		YL2401469-006	RPD
Sample Type	Units	ССМЕ	1 L240000-003	BFD	(%)	1 L2400030-001	BFD	(%)	162401272-003	BFD	(%)	1 L240 1403-00 1	BFD	(%)
Sample Type	Ullits	COME		БГО	(/0)		ыы	(/0)		БГО	(70)		BFD	(/0)
General Chemistry			•											
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	40.8	40.3	nc	41.9	41.8	0%	48.0	49.3	3%	45.2	44.7	1%
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	<1.0	<1.0	1%	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<1.0	nc
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<1.0	nc
Alkalinity, Total	mg/L	n/v	40.8	40.3	1%	41.9	41.8	0%	48.0	49.3	3%	45.2	44.7	1%
Ammonia (as N)	mg/L	0.0173/190 _{TBC2} A	<0.0050	<0.0050	1%	<0.0050	< 0.0050	nc	0.0184	0.0193	nc	0.0056	0.0060	nc
Chloride	mg/L	120 ^A	1.35	1.34	nc	1.43	1.43	nc	1.43	1.43	nc	1.43	1.42	nc
Electrical Conductivity, Lab	μS/cm	n/v	103	103	nc	105	105	0%	102	102	0%	110	109	1%
Hardness (as CaCO3)	mg/L	n/v	41.8	42.2	1%	45.4	45.3	0%	44.2	45.7	3%	45.3	45.6	1%
Hardness (as CaCO3)	mg/L	n/v	44.9	44.3	0%	44.0	45.0	2%	44.4	46.0	4%	47.3	47.3	0%
Nitrate	mg/L	13 ^A	< 0.022	<0.022	nc	<0.022	0.102	nc	<0.022	<0.022	nc	<0.022	< 0.022	nc
Nitrate (as N)	mg/L	3.0 ^A	< 0.0050	<0.0050	nc	<0.0050	0.0231	nc	< 0.0050	<0.0050	nc	<0.0050	< 0.0050	nc
Nitrate + Nitrite (as N)	mg/L	n/v	< 0.0051	<0.0051	nc	<0.0051	0.0231	nc	<0.0051	<0.0051	nc	<0.0051	< 0.0051	nc
Nitrite	mg/L	0.197 _{n1} ^A	<0.0033	<0.0033	nc	<0.0033	<0.0033	nc	<0.0033	<0.0033	nc	<0.0033	< 0.0033	nc
Nitrite (as N)	mg/L	0.06 ^A	<0.0010	<0.0010	nc	<0.0010	<0.0010	nc	<0.0010	<0.0010	nc	<0.0010	<0.0010	nc
,	_	0.06 n/v	<0.0010	<0.0010	0%	<0.0010	<0.0010		0.0012 HTA	0.0013 HTA		<0.0010	<0.0010	
Orthophosphate (as P) pH, lab	mg/L S.U.	*	7.89	7.91		7.87	7.86	nc 0%	7.98	7.97	nc 0%	7.90	7.91	nc 0%
		6.5-9.0 ^A			nc						'			
Phenolphthalein Alkalinity	mg/L	n/v	<1.0	<1.0	14%	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<1.0	nc
Phosphorus, Total	mg/L	n/v	0.0091	0.0064	nc	0.0051	0.0046	nc	0.0042	0.0045	nc	0.0069	0.0063	nc
Sulfate	mg/L	n/v	7.60	7.56	nc	7.94	7.90	1%	8.06	8.02	0%	9.67	9.58	1%
Total Dissolved Solids Total Organic Carbon	mg/L mg/L	n/v n/v	62.5 3.89	54.5 3.76	1%	62.8 2.95	62.2 2.70	1% 9%	64.2 3.63	64.5 3.70	0% 2%	68.2 3.23	69.2 3.49	1% 8%
-	_	Α			nc									
Total Suspended Solids	mg/L	SN	<1.0	<1.0	3%	3.1	3.1	nc	<1.0	<1.0	nc	<1.0	<1.0	nc
BTEX and Petroleum Hydrocarbon		1 ^						_						
Benzene	μg/L	370 ^A	<0.50	<0.50	nc	<0.50	<0.50	nc	<0.50	<0.50	nc	<0.50	<0.50	nc
Toluene	μg/L	2 ^A	<0.50	<0.50	nc	<0.50	<0.50	nc	<0.50	<0.50	nc	<0.50	< 0.50	nc
Ethylbenzene	μg/L	90 ^A	< 0.50	< 0.50	nc	<0.50	< 0.50	nc	<0.50	<0.50	nc	<0.50	< 0.50	nc
Xylene, m & p-	μg/L	n/v	< 0.50	< 0.50	nc	<0.40	< 0.40	nc	<0.50	<0.50	nc	<0.50	< 0.50	nc
Xylene, o-	μg/L	n/v	< 0.50	< 0.50	nc	<0.30	< 0.30	nc	<0.50	<0.50	nc	<0.50	< 0.50	nc
Xylenes, Total	μg/L	n/v	< 0.75	<0.75	nc	<0.50	< 0.50	nc	<0.75	<0.75	nc	<0.75	< 0.75	nc
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	-	-	-	<0.50	< 0.50	nc	-	-	-	-	-	-
Styrene	μg/L	72 ^A	-	-	-	<0.50	< 0.50	nc	-	_	-	-	-	-
PHC F1 (C6-C10 range)	μg/L	n/v	<100	<100	nc	<100	<100	nc	<100	<100	nc	<100	<100	nc
PHC F1 (C6-C10 range) minus BTE		n/v	<100	<100	nc	<100	<100	nc	<100	<100	nc	<100	<100	nc
PHC F2 (>C10-C16 range)	μg/L	n/v	<100	<100	nc	<100	<100	nc	<100	<100	nc	<100	<100	nc
PHC F3 (>C16-C34 range)	μg/L	n/v	<250	<250	nc	<100	<100	nc	<250	<250	nc	<250	<250	nc
PHC F4 (>C34-C50 range)	μg/L	n/v	<250	<250	nc	<300	<300	nc	<250	<250	nc	<250	<250	nc
Total BTEX (Calc)	μg/L	n/v	<1.2	<1.2	nc	<300	<300	nc	<1.2	<1.2	nc	<1.2	<1.2	nc
Total Hydrocarbons (C6-C50)	μg/L	n/v	<400	<400	nc	<300	<300	nc	<400	<400	nc	<400	<400	nc
Metals, Dissolved	_													
Calcium	mg/L	n/v	11.9	12.1	2%	12.6	12.6	0%	12.6	13.1	4%	13.0	13.2	2%
Magnesium	mg/L	n/v	2.94	2.90	1%	3.38	3.36	1%	3.10	3.16	2%	3.11	3.06	2%
Potassium	mg/L	n/v	1.50	1.49	1%	1.56	1.56	0%	1.52	1.58	4%	1.50	1.56	4%
Sodium	mg/L	n/v	2.21	2.19	1%	2.54	2.55	0%	2.38	2.50	5%	2.39	2.38	0%



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location							SI	NP 201	l6-11a					
Sample Date Sample ID Sampling Company Laboratory			13-Jun-24 GLG-2024-00001-009 GLG-2024-00001-020 STANTEC ALS			GLG-2024-00002-009 STAN AI	1-Jul-24 GLG-2024-00002-020 NTEC _S		22 GLG-2024-00003-009 STAI	NTEC LS		11-Sep-24 GLG-2024-00004-009 GLG-2024-00004-00 STANTEC ALS YL2401469		20
Laboratory Work Order Laboratory Sample ID Sample Type	Units	CCME	YL24 YL2400666-003	00666 YL2400666-004 BFD	RPD (%)	YL24 YL2400890-001	00890 YL2400890-002 BFD	RPD (%)		01272 YL2401272-006 BFD	RPD (%)	YL24 YL2401469-001	01469 YL2401469-006 BFD	RPD (%)
	Office	COME		БГБ	(/0)		BFD	(70)		BFD	(/0)		ыы	(70)
Metals, Total			1											
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.0151	0.0136	nc	0.0251	0.0251	0%	0.0111	0.0102	nc	0.0121	0.0114	nc
Antimony	mg/L	n/v	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc
Arsenic	mg/L	0.005 ^A	0.00052	0.00054	4%	0.00053	0.00053	0%	0.00081	0.00074	9%	0.00143	0.00140	2%
Barium	mg/L	n/v	0.00450	0.00443	2%	0.00443	0.00440	1%	0.00520	0.00545	5%	0.00603	0.00603	0%
Beryllium	mg/L	n/v	<0.000100	<0.000100	nc	<0.000100	<0.000100	nc	<0.000100	<0.000100	nc	<0.000100	<0.000100	nc
Bismuth	mg/L	n/v	<0.000050	<0.000050	nc	<0.000050	<0.000050	nc	<0.000050	<0.000050	nc	<0.000050	<0.000050	nc
Boron	mg/L	1.5 ^A	< 0.010	<0.010	nc	< 0.010	<0.010	nc	0.012	0.012	nc	< 0.010	<0.010	nc
Cadmium	mg/L	0.00009 _{LTG} ^A	< 0.0000050	<0.0000050	nc	< 0.0000050	<0.000050	nc	<0.000050	<0.0000050	nc	<0.0000050	<0.0000050	nc
Calcium	mg/L	n/v	12.7	12.8	1%	12.5	12.7	2%	12.6	13.2	5%	13.7	13.6	1%
Cesium	mg/L	n/v	< 0.000010	<0.00010	nc	<0.00010	<0.000010	nc	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc
Chromium	mg/L	n/v	< 0.00050	<0.00050	nc	< 0.00050	<0.00050	nc	<0.00050	<0.00050	nc	<0.00050	<0.00050	nc
Cobalt	mg/L	n/v	< 0.00010	< 0.00010	nc	<0.00010	<0.00010	nc	<0.00010	< 0.00010	nc	<0.00010	< 0.00010	nc
Copper		0.002/0.004 _{TBC1} A	0.00065	0.00065	nc	0.00064	0.00065	nc	0.00055	0.00056	nc	0.00052	0.00051	nc
Iron	mg/L	0.3 ^A	0.012	0.011	nc	0.024	0.028	nc	<0.010	<0.010	nc	<0.010	<0.010	nc
Lead		0.001/0.007 _{TBC1} ^A	<0.000050	<0.000050	nc	<0.000050	<0.000050	nc	<0.000050	<0.000050	nc	<0.000050	<0.000050	nc
Lithium	mg/L	n/v	0.0020	0.0020	nc	0.0020	0.0021	nc	0.0016	0.0017	nc	0.0021	0.0021	nc
Magnesium	mg/L	n/v	3.20	2.99	7%	3.10	3.22	4%	3.15	3.16	0%	3.19	3.24	2%
Manganese	mg/L	n/v	0.00244	0.00252	3%	0.00294	0.00310	5%	0.00283	0.00282	0%	0.00318	0.00310	3%
Mercury	mg/L	0.000026 ^A	<0.000050	<0.0000050	nc	<0.000050	<0.0000050	nc	<0.0000050	0.0000063 RRV	nc	<0.000050	<0.000050	nc
Molybdenum	mg/L	0.073 ^A	0.000144	0.000146	nc	0.000112	0.000109	nc	0.000169	0.000184	nc	0.000420	0.000428	2%
Nickel	mg/L	0.025/0.15 _{TBC1} A	<0.00050	<0.00050	nc	<0.00050	<0.00050	nc	<0.00050	<0.00050	nc	0.00052	<0.00050	nc
Phosphorus	mg/L	n/v	< 0.050	< 0.050	nc	< 0.050	< 0.050	nc	< 0.050	<0.050	nc	< 0.050	< 0.050	nc
Potassium	mg/L	n/v	1.56	1.58	1%	1.65	1.68	2%	1.55	1.61	4%	1.51	1.49	1%
Rubidium	mg/L	n/v	0.00200	0.00191	5%	0.00231	0.00225	3%	0.00212	0.00216	2%	0.00209	0.00211	1%
Selenium	mg/L	0.001 ^A	< 0.000050	<0.000050	nc	< 0.000050	<0.000050	nc	<0.000050	<0.000050	nc	<0.000050	<0.000050	nc
Silicon	mg/L	n/v	0.18	0.17	nc	0.22	0.23	nc	0.35	0.35	nc	0.40	0.40	nc
Silver	mg/L	0.00025 ^A	< 0.000010	<0.00010	nc	<0.000010	<0.000010	nc	<0.000010	<0.00010	nc	< 0.000010	<0.000010	nc
Sodium	mg/L	n/v	2.48	2.54	2%	2.33	2.45	5%	2.36	2.53	7%	2.43	2.33	4%
Strontium	mg/L	n/v	0.0465	0.0451	3%	0.0475	0.0468	1%	0.0514	0.0528	3%	0.0584	0.0600	3%
Sulfur	mg/L	n/v	2.81	2.70	4%	2.16	2.51	nc	3.01	2.98	1%	3.67	3.63	1%
Tellurium	mg/L	n/v	< 0.00020	<0.00020	nc	<0.00020	<0.00020	nc	<0.00020	<0.00020	nc	<0.00020	<0.00020	nc
Thallium	mg/L	0.0008 ^A	<0.000010	<0.000010	nc	< 0.000010	<0.000010	nc	<0.000010	<0.000010	nc	<0.000010	<0.000010	nc
Thorium	mg/L	n/v	< 0.00010	<0.00010	nc	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc
Tin	mg/L	n/v	< 0.00010	<0.00010	nc	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc
Titanium	mg/L	n/v	0.00040	0.00034	nc	0.00083	0.00086	nc	<0.00030	<0.00030	nc	<0.00030	<0.00030	nc
Tungsten	mg/L	n/v	< 0.00010	<0.00010	nc	< 0.00010	<0.00010	nc	<0.00010	<0.00010	nc	<0.00010	<0.00010	nc
Uranium	mg/L	0.015 ^A	0.000156	0.000154	1%	0.000131	0.000131	0%	0.000157	0.000158	1%	0.000421	0.000410	3%
Vanadium	mg/L	n/v	<0.00050	<0.00050	nc	<0.00050	<0.00050	nc	<0.00050	<0.00050	nc	<0.00050	<0.00050	nc
Zinc	mg/L	n/v	<0.0030	<0.0030	nc	<0.0030	<0.0030	nc	<0.0030	< 0.0030	nc	<0.0030	<0.0030	nc
Zirconium	mg/L	n/v	<0.00020	<0.00020	nc	<0.00020	<0.00020	nc	<0.00020	<0.00020	nc	<0.00020	<0.00020	nc



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				SNP 20	16-11b1			SNP 20	16-11b2	
Sample Date			14-Jun-24	10-Jul-24	20-Aug-24	12-Sep-24	14-Jun-24	10-Jul-24	20-Aug-24	12-Sep-24
Sample ID				GLG-2024-00002-010		•				•
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS
•							YL2400673			YL2401501
Laboratory Work Order			YL2400673	YL2400874	YL2401240	YL2401501		YL2400874	YL2401240	
Laboratory Sample ID			YL2400673-001	YL2400874-002	YL2401240-008	YL2401501-007	YL2400673-002	YL2400874-004	YL2401240-009	YL2401501-008
Sample Type	Units	CCME								
General Chemistry										
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	41.7	40.6	41.5	41.5	41.7	40.2	41.0	42.0
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total	mg/L	n/v	41.7	40.6	41.5	41.5	41.7	40.2	41.0	42.0
Ammonia (as N)	mg/L	0.0173/190 _{TBC2} A	< 0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050	<0.0050
Chloride	mg/L	120 ^A	1.45	1.44	1.44	1.40	1.46	1.43	1.44	1.39
Electrical Conductivity, Lab	μS/cm	n/v	105	99.5	101	105	104	98.9	103	101
Hardness (as CaCO3)	mg/L	n/v	42.5	41.2	42.9	43.4	42.2	42.1	44.5	43.1
Hardness (as CaCO3)	mg/L	n/v	45.4	44.1	41.5	42.8	45.0	44.4	41.8	44.1
Nitrate	mg/L	13 ^A	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022
Nitrate (as N)	mg/L	3.0 ^A	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050
Nitrate + Nitrite (as N)	mg/L	n/v	<0.0051	<0.0051	<0.0051	< 0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite	mg/L	0.197 _{n1} ^A	< 0.0033	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0033
	_									
Nitrite (as N)	mg/L	0.06 ^A	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Orthophosphate (as P)	mg/L	n/v	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
pH, lab	S.U.	6.5-9.0 ^A	7.90	7.92	7.92	7.80	7.91	7.94	7.90	7.84
Phenolphthalein Alkalinity	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phosphorus, Total	mg/L	n/v	0.0044	0.0040	0.0046	0.0043	0.0045	0.0029	0.0050	0.0053
Sulfate	mg/L	n/v	8.54	7.86	7.88	7.84	8.12	7.84	7.90	7.67
Total Dissolved Solids	mg/L	n/v	60.3	48.7	69.0	66.8	53.7	53.7	63.0	69.2
Total Organic Carbon	mg/L	n/v	3.32	2.76	3.22	2.82	2.81	3.02	3.17	2.82
Total Suspended Solids	mg/L	A SN	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BTEX and Petroleum Hydrocarbon										
Benzene	μg/L	370 ^A	< 0.50	<0.50	<0.50	< 0.50	< 0.50	<0.50	<0.50	<0.50
Toluene	μg/L	2 ^A	< 0.50	<0.50	<0.50	< 0.50	< 0.50	<0.50	<0.50	<0.50
Ethylbenzene	μg/L	90 ^A	< 0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	< 0.50
Xylene, m & p-	μg/L	n/v	< 0.50	<0.40	<0.50	< 0.50	< 0.50	<0.40	<0.50	<0.50
Xylene, o-	μg/L	n/v	<0.50	<0.30	<0.50	<0.50	<0.50	<0.30	<0.50	<0.50
Xylenes, Total	μg/L	n/v	< 0.75	<0.50	<0.75	< 0.75	< 0.75	<0.50	< 0.75	<0.75
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	-	<0.50	_	-	-	<0.50	-	-
Styrene	μg/L	72 ^A	-	<0.50	_	-	-	<0.50	_	_
PHC F1 (C6-C10 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F1 (C6-C10 range) minus BTEX		n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F2 (>C10-C16 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F3 (>C16-C34 range)	μg/L	n/v	<250	<100	<250	<250	<250	<100	<250	<250
PHC F4 (>C34-C50 range)	μg/L	n/v	<250	<300	<250	<250	<250	<300	<250	<250
Total BTEX (Calc)	μg/L	n/v	<1.2	<300	<1.2	<1.2	<1.2	<300	<1.2	<1.2
Total Hydrocarbons (C6-C50)	μg/L	n/v	<400	<300	<400	<400	<400	<300	<400	<400
Metals, Dissolved										
Calcium	mg/L	n/v	12.1	11.7	11.9	12.5	12.0	12.0	12.2	12.4
Magnesium	mg/L	n/v	2.98	2.90	3.20	2.96	2.96	2.95	3.40	2.94
Potassium	mg/L	n/v	1.50	1.55	1.50	1.46	1.51	1.55	1.55	1.44
Sodium	mg/L	n/v	2.31	2.37	2.50	2.32	2.34	2.38	2.51	2.32



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				SNP 20	16-11b1			SNP 20	16-11b2	
Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	CCME	14-Jun-24 GLG-2024-00001-010 STANTEC ALS YL2400673 YL2400673-001	10-Jul-24 GLG-2024-00002-010 STANTEC ALS YL2400874 YL2400874-002	20-Aug-24 GLG-2024-0003-010 STANTEC ALS YL2401240 YL2401240-008	12-Sep-24 GLG-2024-00004-010 STANTEC ALS YL2401501 YL2401501-007	14-Jun-24 GLG-2024-00001-011 STANTEC ALS YL2400673 YL2400673-002	10-Jul-24 GLG-2024-00002-011 STANTEC ALS YL2400874 YL2400874-004	20-Aug-24 GLG-2024-00003-011 STANTEC ALS YL2401240 YL2401240-009	12-Sep-24 GLG-2024-00004-011 STANTEC ALS YL2401501 YL2401501-008
Metals, Total										
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.0092	0.0080	0.0117	0.0106	0.0082	0.0108	0.0108	0.0112
Antimony	mg/L	n/v	< 0.00010	<0.00010	<0.00010	<0.00010	< 0.00010	<0.00010	<0.00010	< 0.00010
Arsenic	mg/L	0.005 ^A	0.00030	0.00030	0.00036	0.00034	0.00026	0.00030	0.00033	0.00035
Barium	mg/L	n/v	0.00462	0.00440	0.00490	0.00446	0.00431	0.00479	0.00458	0.00432
Beryllium	mg/L	n/v	< 0.000100	<0.000100	<0.000100	<0.000100	< 0.000100	<0.000100	<0.000100	<0.000100
Bismuth	mg/L	n/v	< 0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000050	<0.000050	<0.000050
Boron	mg/L	1.5 ^A	< 0.010	< 0.010	<0.010	<0.010	< 0.010	<0.010	< 0.010	< 0.010
Cadmium	mg/L	0.00009 _{LTG} ^A	<0.0000050	<0.000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium	mg/L	n/v	12.8	12.8	11.3	12.2	12.8	12.9	11.7	12.5
Cesium	mg/L	n/v	< 0.000010	<0.000010	<0.00010	<0.00010	<0.000010	<0.00010	<0.000010	<0.000010
Chromium	mg/L	n/v	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper	mg/L	0.002/0.004 _{TBC1} A	0.00056	0.00054	0.00061	0.00054	0.00051	0.00056	0.00061	0.00053
Iron	mg/L	0.3 ^A	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead	_	0.001/0.007 _{TBC1} A	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lithium	mg/L	-								
	mg/L	n/v n/v	0.0019 3.27	0.0021 2.95	0.0019 3.23	0.0021 2.99	0.0019 3.16	0.0022 2.96	0.0019 3.06	0.0021 3.14
Magnesium	mg/L	n/v	0.00232	0.00211	0.00270	0.00229	0.00243	0.00214	0.00275	0.00303
Manganese	mg/L	· ·								
Mercury	mg/L	0.000026 ^A	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum	mg/L	0.073 ^A	0.000089	0.000090	0.000078	0.000096	0.000082	0.000089	0.000079	0.000091
Nickel	mg/L	0.025/0.15 _{TBC1} ^A	< 0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus	mg/L	n/v	< 0.050	<0.050	<0.050	<0.050	< 0.050	<0.050	<0.050	<0.050
Potassium	mg/L	n/v	1.51	1.50	1.70	1.45	1.50	1.50	1.59	1.47
Rubidium	mg/L	n/v	0.00197	0.00188	0.00220	0.00202	0.00188	0.00191	0.00213	0.00222
Selenium	mg/L	0.001 ^A	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Silicon	mg/L	n/v	0.22	0.15	0.18	0.15	0.19	0.14	0.16	0.16
Silver	mg/L	0.00025 ^A	< 0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium	mg/L	n/v	2.49	2.43	2.60	2.39	2.45	2.40	2.48	2.48
Strontium	mg/L	n/v	0.0448	0.0482	0.0454	0.0480	0.0468	0.0485	0.0459	0.0451
Sulfur	mg/L	n/v	2.94	2.75	2.74	2.58	2.87	2.67	2.74	2.41
Tellurium	mg/L	n/v	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium	mg/L	0.0008 ^A	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium	mg/L	n/v	0.00037	<0.00030	<0.00030	<0.00030	0.00036	<0.00030	<0.00030	0.00039
Tungsten	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium	mg/L	0.015 ^A	0.000092	0.000105	0.000106	0.000108	0.000092	0.000105	0.000100	0.000108
Vanadium	mg/L	n/v	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium	mg/L	n/v	< 0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				SNP 20	16-11b3		SNP 2016-11b4				
Sample Date			14-Jun-24	10-Jul-24	20-Aug-24	12-Sep-24	14-Jun-24	10-Jul-24	20-Aug-24	12-Sep-24	
Sample ID					_	GLG-2024-00004-012			_	•	
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
			_			_	_	_	_	_	
Laboratory			ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS	
Laboratory Work Order			YL2400673	YL2400874	YL2401240	YL2401501	YL2400673	YL2400874	YL2401240	YL2401501	
Laboratory Sample ID			YL2400673-003	YL2400874-003	YL2401240-010	YL2401501-009	YL2400673-004	YL2400874-001	YL2401240-011	YL2401501-010	
Sample Type	Units	CCME									
General Chemistry		•									
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	48.7	40.9	41.1	42.3	41.6	40.7	40.6	41.5	
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Alkalinity, Total	mg/L	n/v	48.7	40.9	41.1	42.3	41.6	40.7	40.6	41.5	
Ammonia (as N)	mg/L	0.0173/190 _{TBC2} A	< 0.0050	<0.0050	<0.0050	0.0066	< 0.0050	<0.0050	<0.0050	<0.0050	
Chloride	mg/L	120 ^A	1.49	1.44	1.44	1.42	1.46	1.44	1.44	1.40	
Electrical Conductivity, Lab	μS/cm	n/v	122	99.9	99.0	103	103	101	103	100	
Hardness (as CaCO3)	mg/L	n/v	42.6	42.2	45.4	44.4	41.9	42.0	45.0	44.5	
Hardness (as CaCO3)	mg/L	n/v	46.1	44.2	42.3	45.5	43.9	43.0	41.2	43.3	
Nitrate	mg/L	13 ^A	<0.022	<0.022	<0.022	<0.022	0.064	<0.022	<0.022	<0.022	
Nitrate (as N)	mg/L	3.0 ^A	<0.0050	<0.0050	<0.0050	<0.0050	0.0145	<0.0050	<0.0050	<0.0050	
Nitrate + Nitrite (as N)	mg/L	n/v	<0.0051	<0.0051	<0.0051	<0.0051	0.0145	<0.0051	<0.0051	<0.0051	
Nitrite	mg/L	0.197 _{n1} ^A	<0.0031	<0.0031	<0.0031	<0.0031	<0.0033	<0.0031	<0.0031	<0.0033	
	_										
Nitrite (as N)	mg/L	0.06 ^A	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Orthophosphate (as P)	mg/L	n/v	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
pH, lab	S.U.	6.5-9.0 ^A	8.22	7.92	7.79	7.86	7.90	7.91	7.79	7.86	
Phenolphthalein Alkalinity	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Phosphorus, Total	mg/L	n/v	0.0073	0.0045	0.0050	0.0053	0.0061	0.0042	0.0043	0.0047	
Sulfate	mg/L	n/v	9.92	7.88	7.90	8.11	8.07	7.86	7.90	7.59	
Total Dissolved Solids	mg/L	n/v	58.3	58.7	62.3	68.5	59.7	56.3	67.3	63.5	
Total Organic Carbon	mg/L	n/v	2.93	2.83	3.09	3.00	2.57	2.60	3.08	2.95	
Total Suspended Solids	mg/L	A SN	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
BTEX and Petroleum Hydrocarbon											
Benzene	μg/L	370 ^A	<0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	
Toluene	μg/L	2 ^A	<0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	
Ethylbenzene	μg/L	90 ^A	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	
Xylene, m & p-	μg/L	n/v	< 0.50	<0.40	<0.50	<0.50	< 0.50	<0.40	<0.50	<0.50	
Xylene, o-	μg/L	n/v	< 0.50	<0.30	<0.50	<0.50	< 0.50	<0.30	<0.50	<0.50	
Xylenes, Total	μg/L	n/v	< 0.75	<0.50	<0.75	<0.75	< 0.75	<0.50	<0.75	<0.75	
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	-	<0.50	-	-	-	<0.50	-	-	
Styrene	μg/L	72 ^A	-	<0.50	_	-	-	<0.50	_	-	
PHC F1 (C6-C10 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100	
PHC F1 (C6-C10 range) minus BTEX		n/v	<100	<100	<100	<100	<100	<100	<100	<100	
PHC F2 (>C10-C16 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100	
PHC F3 (>C16-C34 range)	μg/L	n/v	<250	<100	<250	<250	<250	<100	<250	<250	
PHC F4 (>C34-C50 range)	μg/L	n/v	<250	<300	<250	<250	<250	<300	<250	<250	
Total BTEX (Calc)	μg/L	n/v	<1.2	<300	<1.2	<1.2	<1.2	<300	<1.2	<1.2	
Total Hydrocarbons (C6-C50)	μg/L	n/v	<400	<300	<400	<400	<400	<300	<400	<400	
Metals, Dissolved	1	_									
Calcium	mg/L	n/v	12.0	12.1	12.2	12.8	12.0	12.0	12.6	12.8	
Magnesium	mg/L		3.08	2.90	3.62	3.02	2.90	2.92	3.30	3.05	
Potassium	mg/L		1.50	1.53	1.54	1.46	1.48	1.54	1.50	1.48	
Sodium	mg/L	n/v	2.35	2.38	2.67	2.43	2.27	2.38	2.57	2.45	



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				SNP 20	16-11b3		SNP 2016-11b4				
Sample Date Sample ID Sampling Company			14-Jun-24 GLG-2024-00001-012 STANTEC	10-Jul-24 GLG-2024-00002-012 STANTEC	20-Aug-24 GLG-2024-00003-012 STANTEC	12-Sep-24 GLG-2024-00004-012 STANTEC	14-Jun-24 GLG-2024-00001-013 STANTEC	10-Jul-24 GLG-2024-00002-013 STANTEC	20-Aug-24 GLG-2024-00003-013 STANTEC	12-Sep-24 GLG-2024-00004-013 STANTEC	
Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	CCME	ALS YL2400673 YL2400673-003	ALS YL2400874 YL2400874-003	ALS YL2401240 YL2401240-010	ALS YL2401501 YL2401501-009	ALS YL2400673 YL2400673-004	ALS YL2400874 YL2400874-001	ALS YL2401240 YL2401240-011	ALS YL2401501 YL2401501-010	
Metals, Total											
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.0309	0.0147	0.0122	0.0131	0.0070	0.0057	0.0112	0.0145	
Antimony	mg/L	n/v	< 0.00010	<0.00010	<0.00010	<0.00010	< 0.00010	<0.00010	<0.00010	<0.00010	
Arsenic	mg/L	0.005 ^A	0.00029	0.00033	0.00033	0.00031	0.00028	0.00032	0.00032	0.00038	
Barium	mg/L	n/v	0.00514	0.00443	0.00466	0.00438	0.00454	0.00434	0.00440	0.00445	
Beryllium	mg/L	n/v	< 0.000100	<0.000100	< 0.000100	<0.000100	< 0.000100	<0.000100	<0.000100	<0.000100	
Bismuth	mg/L	n/v	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Boron	mg/L	1.5 ^A	< 0.010	<0.010	<0.010	<0.010	< 0.010	<0.010	<0.010	<0.010	
Cadmium	mg/L	0.00009 _{LTG} ^A	<0.000050	<0.000050	<0.0000050	<0.000050	<0.000050	<0.000050	<0.0000050	<0.000050	
Calcium	mg/L	n/v	12.9	12.9	11.7	12.8	12.3	12.4	11.5	12.0	
Cesium	mg/L	n/v	< 0.000010	<0.000010	<0.00010	<0.00010	< 0.000010	<0.00010	<0.000010	<0.000010	
Chromium	mg/L	n/v	< 0.00050	<0.00050	<0.00050	<0.00050	< 0.00050	<0.00050	<0.00050	<0.00050	
Cobalt	mg/L	n/v	< 0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Copper	mg/L	0.002/0.004 _{TBC1} A	0.00067	0.00065	0.00059	0.00054	0.00052	0.00108	0.00062	0.00056	
Iron	mg/L	0.3 ^A	0.033	0.012	<0.010	0.014	< 0.010	<0.010	<0.010	0.013	
Lead	mg/L	0.001/0.007 _{TBC1} A	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000050	<0.000050	<0.000050	
Lithium	mg/L	n/v	0.0020	0.0022	0.0019	0.0022	0.0019	0.0021	0.0019	0.0022	
Magnesium	mg/L	n/v	3.38	2.92	3.18	3.28	3.21	2.92	3.03	3.24	
Manganese	mg/L	n/v	0.00445	0.00321	0.00266	0.00464	0.00228	0.00075	0.00276	0.00302	
Mercury	mg/L	0.000026 ^A	< 0.0000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Molybdenum	mg/L	0.073 ^A	0.000080	0.000103	0.000085	0.000103	0.000084	0.000112	0.000089	0.000088	
Nickel	mg/L	0.025/0.15 _{TBC1} ^A	0.00052	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Phosphorus	mg/L	n/v	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Potassium	mg/L	n/v	1.54	1.50	1.66	1.47	1.51	1.48	1.58	1.50	
Rubidium	mg/L	n/v	0.00201	0.00199	0.00221	0.00210	0.00196	0.00194	0.00204	0.00218	
Selenium	mg/L	0.001 ^A	<0.000050	0.000052	0.000051	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Silicon	mg/L	n/v	0.23	0.14	0.16	0.16	0.19	0.14	0.17	0.17	
Silver	mg/L	0.00025 ^A	<0.000010	<0.000010	<0.00010	<0.00010	<0.000010	<0.000010	<0.000010	<0.000010	
Sodium	mg/L	n/v	2.60	2.41	2.53	2.46	2.47	2.43	2.47	2.42	
Strontium	mg/L	n/v	0.0468	0.0483	0.0451	0.0476	0.0433	0.0477	0.0456	0.0461	
Sulfur	mg/L	n/v	3.49	2.53	2.78	2.77	2.89	2.65	2.91	2.54	
Tellurium	mg/L	n/v	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Thallium	mg/L	0.0008 ^A	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.00010	<0.000010	<0.000010	
Thorium	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	< 0.00010	0.00016	<0.00010	<0.00010	
Tin	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Titanium	mg/L	n/v	0.00126	0.00043	<0.00030	0.00041	<0.00030	<0.00030	<0.00030	0.00045	
Tungsten	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Uranium	mg/L	0.015 ^A	0.000107	0.000106	0.000105	0.000111	0.000093	0.000110	0.000102	0.000104	
Vanadium	mg/L	n/v	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Zinc	mg/L	n/v	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	
Zirconium	mg/L	n/v	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				SNP 20)16-11c		SNP 2016-11d	SNP 2016-11d	SNP 2016-11d	SNP 2016-11d
Sample Date			13-Jun-24	11-Jul-24	22-Aug-24	11-Sep-24	13-Jun-24	11-Jul-24	22-Aug-24	11-Sep-24
Sample ID						GLG-2024-00004-014			_	
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order			YL2400666	YL2400890	YL2401272	YL2401469	YL2400666	YL2400890	YL2401272	YL2401469
Laboratory Sample ID			YL2400666-005	YL2400890-003	YL2401272-004	YL2401469-002	YL2400666-001	YL2400890-005	YL2401272-001	YL2401469-003
Sample Type	Units	CCME								
General Chemistry							<u>I</u>			1
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	42.0	41.0	45.3	41.6	67.5	81.5	98.5	90.7
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total	mg/L	n/v	42.0	41.0	45.3	41.6	67.5	81.5	98.5	90.7
Ammonia (as N)	mg/L	0.0173/190 _{TBC2} A	< 0.0050	<0.0050	0.0069	<0.0050	0.0151	0.0199	0.0262	0.0487
Chloride	mg/L	120 ^A	1.39	1.42	1.40	1.42	< 0.50	0.62	0.58	0.63
Electrical Conductivity, Lab	μS/cm	n/v	104	104	98.0	99.3	184	182	189	187
Hardness (as CaCO3)	mg/L	n/v	44.8	44.9	42.5	42.4	86.2	84.8	88.4	90.4
Hardness (as CaCO3)	mg/L	n/v	45.7	42.4	42.2	43.4	89.9	87.0	92.4	88.5
Nitrate	mg/L	13 ^A	<0.022	<0.022	0.022	<0.022	<0.022	<0.022	0.041	0.048
Nitrate (as N)	mg/L	3.0 ^A	<0.0050	<0.0050	0.0051	<0.0050	<0.0050	<0.0050	0.0093	0.0109
Nitrate + Nitrite (as N)	-	3.0 n/v	<0.0050	<0.0050	0.0051	<0.0050	<0.0050	<0.0050	0.0093	0.0109
` ,	mg/L									
Nitrite	mg/L	0.197 _{n1} A	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
Nitrite (as N)	mg/L	0.06 ^A	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Orthophosphate (as P)	mg/L	n/v	< 0.0010	<0.0010	0.0013 HTA	<0.0010	<0.0010	<0.0010	0.0017 HTA	<0.0010
pH, lab	S.U.	6.5 - 9.0 ^A	7.88	7.86	7.96	7.86	7.75	8.10	7.87	7.94
Phenolphthalein Alkalinity	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phosphorus, Total	mg/L	n/v	0.0083	0.0037	0.0049	0.0046	0.0204	0.0173	0.0836	0.0248
Sulfate	mg/L	n/v	7.45	7.72	7.49	7.78	20.1	8.67	8.68	7.97
Total Dissolved Solids	mg/L	n/v	54.8	50.5	62.2	64.5	156	130	173	169
Total Organic Carbon	mg/L	n/v	3.18	2.95	3.11	2.60	25.9	25.0	30.4	24.4
Total Suspended Solids	mg/L	A SN	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	11.1	5.0
BTEX and Petroleum Hydrocarbon	s									
Benzene	μg/L	370 ^A	< 0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	μg/L	2 ^A	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50
Ethylbenzene	μg/L	90 ^A	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50
Xylene, m & p-	μg/L	n/v	< 0.50	<0.40	<0.50	<0.50	< 0.50	<0.40	<0.50	<0.50
Xylene, o-	μg/L	n/v	<0.50	<0.30	<0.50	<0.50	< 0.50	<0.30	<0.50	<0.50
Xylenes, Total	μg/L	n/v	< 0.75	<0.50	<0.75	<0.75	<0.75	<0.50	<0.75	<0.75
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	-	<0.50	_	-	-	<0.50	_	_
Styrene	μg/L	72 ^A	_	<0.50	_	_	_	<0.50	_	_
PHC F1 (C6-C10 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F1 (C6-C10 range) minus BTEX		n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F2 (>C10-C16 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F3 (>C16-C34 range)	μg/L	n/v	<250	<100	<250	<250	<250	<100	<250	<250
PHC F4 (>C34-C50 range)	μg/L	n/v	<250	<300	<250	<250	<250	<300	<250	<250
Total BTEX (Calc)	μg/L	n/v	<1.2	<300	<1.2	<1.2	<1.2	<300	<1.2	<1.2
Total Hydrocarbons (C6-C50)	μg/L	n/v	<400	<300	<400	<400	<400	<300	<400	<400
Metals, Dissolved										
Calcium	mg/L	n/v	12.6	12.7	12.1	12.2	23.0	22.3	22.3	24.0
Magnesium	mg/L	n/v	3.24	3.21	2.99	2.90	6.99	7.06	7.94	7.41
Potassium	mg/L	n/v	1.66	1.51	1.50	1.47	1.95	2.74	2.68	2.73
Sodium	mg/L	n/v	2.34	2.46	2.37	2.26	3.90	5.24	5.91	5.61



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location		l		SNP 20)16-11c		SNP 2016-11d	SNP 2016-11d	SNP 2016-11d	SNP 2016-11d
Sample Date			13-Jun-24	11-Jul-24	22-Aug-24	11-Sep-24	13-Jun-24	11-Jul-24	22-Aug-24	11-Sep-24
Sample ID					_	-	GLG-2024-00001-015		_	
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order			YL2400666	YL2400890	YL2401272	YL2401469	YL2400666	YL2400890	YL2401272	YL2401469
Laboratory Sample ID			YL2400666-005	YL2400890-003	YL2401272-004	YL2401469-002	YL2400666-001	YL2400890-005	YL2401272-001	YL2401469-003
Sample Type	Units	CCME								
Metals, Total										
Aluminum	mg/L	0.005/0.1 _{VAR1} A	0.0102	0.0100	0.0072	0.0092	0.0374	0.0165	0.183 ^A	0.0143
Antimony	mg/L	n/v	< 0.00010	<0.00010	<0.00010	<0.00010	< 0.00010	<0.00010	<0.00010	<0.00010
Arsenic	mg/L	0.005 ^A	0.00028	0.00032	0.00040	0.00035	0.00298	0.00479	0.00481	0.00321
Barium	mg/L	n/v	0.00467	0.00459	0.00423	0.00450	0.0160	0.0160	0.0209	0.0154
Beryllium	mg/L	n/v	<0.000100	<0.000100	<0.000100	<0.000100	< 0.000100	<0.000100	<0.000100	<0.000100
Bismuth	mg/L	n/v	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron	mg/L	1.5 ^A	< 0.010	<0.010	0.012	<0.010	0.013	<0.010	0.012	0.011
Cadmium	mg/L	0.00009 _{LTG} ^A	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.000050	<0.0000050
Calcium	mg/L	n/v	12.9	11.9	12.0	12.3	23.6	22.2	23.5	23.2
Cesium	mg/L	n/v	<0.000010	<0.000010	<0.000010	<0.000010	0.000023	0.000021	0.000054	0.000020
Chromium	mg/L	n/v	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00090	<0.00050
Cobalt	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	0.00154	0.00047	0.00132	0.00062
Copper		0.002/0.004 _{TBC1} ^A	0.00056	0.00055	<0.00050	<0.00050	<0.00050	<0.00050	0.00154	<0.00050
Iron	mg/L	0.3 ^A	<0.010	<0.010	<0.010	<0.010	0.093	0.052	0.321 ^A	0.049
Lead	mg/L	0.001/0.007 _{TBC1} A	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000050	0.000089	<0.000050
Lithium	mg/L	n/v	0.0021	0.0020	0.0014	0.0021	0.0074	0.0074	0.0079	0.0078
Magnesium	mg/L	n/v	3.28	3.07	2.97	3.09	7.52	7.66	8.20	7.42
Manganese	mg/L	n/v	0.00269	0.00224	0.00220	0.00188	0.0778	0.0271	0.119	0.0593
Mercury	mg/L	0.000026 ^A	<0.0000050	<0.0000050	<0.000050	<0.000050	<0.000050	<0.0000050	<0.000050	<0.000050
Molybdenum	mg/L	0.073 ^A	0.000090	0.000084	0.000092	0.000092	<0.000050	0.000097	0.000072	0.000066
Nickel	mg/L	0.025/0.15 _{TBC1} ^A	<0.00050	<0.00050	<0.00050	<0.00050	0.0169	0.00885	0.00912	0.00699
Phosphorus	mg/L	n/v	< 0.050	<0.050	<0.050	<0.050	< 0.050	<0.050	0.062	<0.050
Potassium	mg/L	n/v	1.62	1.64	1.53	1.49	2.05	3.25	2.93	2.58
Rubidium	mg/L	n/v	0.00213	0.00213	0.00199	0.00213	0.00306	0.00446	0.00471	0.00379
Selenium	mg/L	0.001 ^A	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Silicon	mg/L	n/v	0.20	0.16	0.13	0.15	0.46	0.25	0.84	0.53
Silver	mg/L	0.00025 ^A	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium	mg/L	n/v	2.59	2.43	2.41	2.30	4.45	5.62	5.94	5.32
Strontium Sulfur	mg/L mg/L	n/v n/v	0.0467 2.90	0.0457 2.61	0.0468 2.80	0.0457 2.86	0.0915 7.98	0.109 3.68	0.116 4.16	0.106 3.74
Tellurium	mg/L	n/v	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium	mg/L	0.0008 ^A	<0.00020	<0.00020	<0.00020	<0.00010	<0.00020	<0.00010	<0.00010	<0.00020
Thorium	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium	mg/L	n/v	0.00034	<0.00030	<0.00030	<0.00030	0.00035	<0.00030	0.0120	<0.00030
Tungsten	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium	mg/L	0.015 ^A	0.000095	0.000106	0.000095	0.000100	0.000029	0.000057	0.000073	0.000055
Vanadium	mg/L	n/v	< 0.00050	<0.00050	<0.00050	<0.00050	< 0.00050	<0.00050	0.00087	0.00056
Zinc	mg/L	n/v	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium	mg/L	n/v	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				SNP 20)16-11e		SNP 2016-11f				
Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	CCME	13-Jun-24 GLG-2024-00001-016 STANTEC ALS YL2400666 YL2400666-002	11-Jul-24 GLG-2024-00002-016 STANTEC ALS YL2400890 YL2400890-006	22-Aug-24	11-Sep-24 GLG-2024-00004-016 STANTEC ALS YL2401469 YL2401469-004	13-Jun-24 GLG-2024-00001-017 STANTEC ALS YL2400666 YL2400666-006	11-Jul-24	22-Aug-24	11-Sep-24 GLG-2024-00004-017 STANTEC ALS YL2401469 YL2401469-005	
General Chemistry	1										
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	39.7	41.5	48.4	41.8	41.8	41.3	46.6	41.3	
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Alkalinity, Total	mg/L	n/v	39.7	41.5	48.4	41.8	41.8	41.3	46.6	41.3	
Ammonia (as N)	mg/L	0.0173/190 _{TBC2} A	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0054	<0.0050	<0.0050	
Chloride	mg/L	120 ^A	1.34	1.42	1.40	1.42	1.40	1.42	1.40	1.42	
Electrical Conductivity, Lab	μS/cm		100	103	98.6	99.0	105	104	97.2	99.6	
Hardness (as CaCO3)	mg/L	n/v	42.7	43.8	42.6	43.6	44.4	42.7	42.6	43.2	
Hardness (as CaCO3)	mg/L	n/v	43.2	44.4	43.7	42.9	45.1	44.1	42.8	41.6	
Nitrate	mg/L	13 ^A	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	
Nitrate (as N)	mg/L	3.0 ^A	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Nitrate + Nitrite (as N)	mg/L	n/v	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	
Nitrite	mg/L	0.197 _{n1} ^A	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	
Nitrite (as N)	mg/L	0.06 ^A	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Orthophosphate (as P)	mg/L	n/v	< 0.0010	<0.0010	0.0012 HTA	<0.0010	< 0.0010	<0.0010	<0.0010 HTA	<0.0010	
pH, lab	S.U.	6.5-9.0 ^A	7.88	7.85	7.96	7.86	7.89	7.86	8.00	7.90	
Phenolphthalein Alkalinity	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Phosphorus, Total	mg/L	n/v	0.0071	0.0032	0.0043	0.0054	0.0077	0.0040	0.0033	0.0076	
Sulfate	mg/L	n/v	7.18	7.14	7.52	7.73	7.61	7.72	7.67	7.74	
Total Dissolved Solids	mg/L	n/v	60.8	57.2	58.5	65.5	55.2	50.2	61.2	60.5	
Total Organic Carbon	mg/L	n/v	3.61	2.90	2.98	2.91	2.96	2.94	3.34	2.68	
Total Suspended Solids	mg/L	A SN	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
BTEX and Petroleum Hydrocarbon	s										
Benzene	μg/L	370 ^A	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	
Toluene	μg/L	2 ^A	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	
Ethylbenzene	μg/L	90 ^A	< 0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Xylene, m & p-	μg/L	n/v	< 0.50	<0.40	<0.50	<0.50	<0.50	<0.40	<0.50	<0.50	
Xylene, o-	μg/L	n/v	< 0.50	< 0.30	<0.50	<0.50	< 0.50	<0.30	<0.50	<0.50	
Xylenes, Total	μg/L	n/v	< 0.75	<0.50	<0.75	<0.75	< 0.75	<0.50	<0.75	<0.75	
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	-	< 0.50	-	-	-	<0.50	-	-	
Styrene	μg/L	72 ^A	-	<0.50	-	-	-	<0.50	-	-	
PHC F1 (C6-C10 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100	
PHC F1 (C6-C10 range) minus BTE		n/v	<100	<100	<100	<100	<100	<100	<100	<100	
PHC F2 (>C10-C16 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100	
PHC F3 (>C16-C34 range)	μg/L	n/v	<250	<100	<250	<250	<250	<100	<250	<250	
PHC F4 (>C34-C50 range)	μg/L	n/v	<250 <1.2	<300 <300	<250	<250 <1.2	<250	<300	<250	<250 <1.2	
Total BTEX (Calc) Total Hydrocarbons (C6-C50)	μg/L μg/L	n/v n/v	<400	<300	<1.2 <400	<400	<1.2 <400	<300 <300	<1.2 <400	<400	
Metals, Dissolved	µу/∟	11/ V	~ +00	\ 000	1 1100	1 ~400	\ +00	\000	1 7400	\400	
Calcium	mg/L	n/v	12.2	12.2	12.0	12.4	12.6	11.9	11.9	12.4	
Magnesium	mg/L	n/v	2.98	3.24	3.06	3.06	3.15	3.16	3.13	2.98	
Potassium	mg/L	n/v	1.55	1.54	1.50	1.52	1.65	1.50	1.49	1.51	
Sodium	mg/L	n/v	2.26	2.50	2.41	2.38	2.35	2.41	2.38	2.33	
See Notes on last page.		-		•		-	-	•		•	



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				SNP 20)16-11e			SNP 2	016-11f	
Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	CCME	13-Jun-24 GLG-2024-00001-016 STANTEC ALS YL2400666 YL2400666-002	11-Jul-24 GLG-2024-00002-016 STANTEC ALS YL2400890 YL2400890-006	22-Aug-24 GLG-2024-0003-016 STANTEC ALS YL2401272 YL2401272-002	11-Sep-24 GLG-2024-00004-016 STANTEC ALS YL2401469 YL2401469-004	13-Jun-24 GLG-2024-00001-017 STANTEC ALS YL2400666 YL2400666-006	11-Jul-24 GLG-2024-00002-017 STANTEC ALS YL2400890 YL2400890-004	22-Aug-24 GLG-2024-00003-017 STANTEC ALS YL2401272 YL2401272-003	11-Sep-24 GLG-2024-00004-017 STANTEC ALS YL2401469 YL2401469-005
Metals, Total	·			1						
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	0.0094	0.0279	0.0077	0.0094	0.0134	0.0119	0.0081	0.0090
Antimony	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	< 0.00010	<0.00010	<0.00010	<0.00010
Arsenic	mg/L	0.005 ^A	0.00029	0.00034	0.00043	0.00035	0.00027	0.00033	0.00041	0.00036
Barium	mg/L	n/v	0.00449	0.00478	0.00424	0.00480	0.00476	0.00465	0.00427	0.00441
Beryllium	mg/L	n/v	< 0.000100	<0.000100	<0.000100	<0.000100	< 0.000100	<0.000100	<0.000100	<0.000100
Bismuth	mg/L	n/v	< 0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	<0.000050	< 0.000050
Boron	mg/L	1.5 ^A	< 0.010	<0.010	<0.010	<0.010	< 0.010	< 0.010	0.013	<0.010
Cadmium	mg/L	0.00009 _{LTG} ^A	<0.0000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.0000050	<0.000050
Calcium	mg/L	n/v	12.3	12.6	12.5	12.2	12.8	12.5	12.1	11.8
Cesium	mg/L	n/v	<0.000010	<0.000010	<0.000010	<0.00010	<0.000010	<0.00010	<0.000010	<0.000010
Chromium	mg/L	n/v	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt	mg/L	n/v	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Copper	mg/L	0.002/0.004 _{TBC1} ^A	0.00052	0.00057	0.00050	<0.00050	0.00058	0.00059	<0.00050	0.00053
	_									
Iron	mg/L	0.3 ^A	<0.010	0.024	<0.010	<0.010	0.014	<0.010	<0.010	<0.010
Lead	mg/L	0.001/0.007 _{TBC1} ^A	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium	mg/L	n/v	0.0020	0.0021	0.0018	0.0021	0.0021	0.0021	0.0016	0.0021
Magnesium	mg/L	n/v	3.04	3.13	3.04	3.02	3.20	3.14	3.05	2.96
Manganese	mg/L	n/v	0.00318	0.00362	0.00372	0.00299	0.00271	0.00288	0.00300	0.00214
Mercury	mg/L	0.000026 ^A	<0.000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum	mg/L	0.073 ^A	0.000083	0.000092	0.000096	0.000096	0.000088	0.000100	0.000094	0.000095
Nickel	mg/L	0.025/0.15 _{TBC1} A	< 0.00050	< 0.00050	<0.00050	<0.00050	< 0.00050	< 0.00050	<0.00050	0.00050
Phosphorus	mg/L	n/v	<0.050	<0.050	<0.050	<0.050	< 0.050	<0.050	<0.050	<0.050
Potassium	mg/L	n/v	1.56	1.68	1.55	1.49	1.63	1.66	1.54	1.44
Rubidium	mg/L	n/v	0.00207	0.00219	0.00207	0.00202	0.00216	0.00211	0.00209	0.00200
Selenium	mg/L	0.001 ^A	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000050	<0.000050
Silicon	mg/L	n/v	0.16	0.17	0.16	0.17	0.18	0.15	0.14	0.15
Silver	mg/L	0.00025 ^A	<0.000010	<0.00010	<0.00010	<0.00010	<0.000010	<0.00010	<0.00010	<0.00010
Sodium	mg/L	n/v	2.46	2.45	2.42	2.31	2.62	2.38	2.43	2.29
Strontium	mg/L	n/v	0.0445	0.0472	0.0484	0.0462	0.0450	0.0460	0.0467	0.0439
Sulfur	mg/L	n/v	2.61	2.48	2.86	3.05	2.80	2.51	2.76	2.79
Tellurium	mg/L	n/v	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium	mg/L	0.0008 ^A	<0.000010	<0.00010	<0.00010	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010
Thorium	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	< 0.00010	<0.00010	<0.00010	<0.00010
Tin	mg/L	n/v	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium	mg/L	n/v	<0.00030	0.00082	<0.00030	<0.00030	0.00032	<0.00030	< 0.00030	<0.00030
Tungsten	mg/L	n/v	< 0.00010	<0.00010	<0.00010	<0.00010	< 0.00010	< 0.00010	<0.00010	<0.00010
Uranium	mg/L	0.015 ^A	0.000090	0.000104	0.000097	0.000095	0.000093	0.000103	0.000098	0.000104
Vanadium	mg/L	n/v	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	< 0.0030	<0.0030	<0.0030	<0.0030
Zirconium	mg/L	n/v	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				Field	Blank			Trip	Blank	
Sample Date Sample ID Sampling Company Laboratory			12-Jun-24 GLG-2024-00001-023 STANTEC ALS	11-Jul-24 GLG-2024-00002-023 STANTEC ALS	22-Aug-24 GLG-2024-00003-023 STANTEC ALS	STANTEC ALS	12-Jun-24 GLG-2024-00001-022 STANTEC ALS	11-Jul-24 GLG-2024-00002-022 STANTEC ALS	22-Aug-24	STANTEC ALS
Laboratory Work Order			YL2400658	YL2400890	YL2401272	YL2401469	YL2400658	YL2400890	YL2401272	YL2401469
Laboratory Sample ID			YL2400658-008	YL2400890-007	YL2401272-008	YL2401469-008	YL2400658-007	YL2400890-008	YL2401272-007	YL2401469-007
Sample Type	Units	CCME	Field Blank	Field Blank	Field Blank	Field Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
General Chemistry										
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	-	-	-	-	-	-	-	-
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	-	-	-	-	-	-	-	-
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	-	-	-	-	-	-	-	-
Alkalinity, Total	mg/L	n/v	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	0.0173/190 _{TBC2} A	-	-	-	-	-	-	-	-
Chloride	mg/L	120 ^A	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	μS/cm	n/v	-	_	-	-	-	-	_	-
Hardness (as CaCO3)	mg/L	n/v	-	-	-	-	-	-	-	-
Hardness (as CaCO3)	mg/L	n/v	-	-	-	-	-	-	-	-
Nitrate	mg/L	13 ^A	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	3.0 ^A	-	-	-	-	-	-	-	-
Nitrate + Nitrite (as N)	mg/L	n/v	-	-	-	-	-	-	-	-
Nitrite	mg/L	0.197 _{n1} ^A	-	-	-	-	-	_	-	-
Nitrite (as N)	mg/L	0.06 ^A	_	_	_	_	_	_	_	_
Orthophosphate (as P)	mg/L	n/v	_	_	_	_	_	_	_	_
pH, lab	S.U.	6.5-9.0 ^A	_	_	_	_	_	_	_	_
Phenolphthalein Alkalinity	mg/L	n/v	_	_	_	_	_	_	_	_
Phosphorus, Total	mg/L	n/v	_	_	_	_	_	_	_	_
Sulfate	mg/L	n/v	-	-	-	-	-	_	-	-
Total Dissolved Solids	mg/L	n/v	-	_	-	-	-	_	_	-
Total Organic Carbon	mg/L	n/v	-	-	-	-	-	-	-	-
Total Suspended Solids	mg/L	A SN	-	-	-	-	-	-	-	-
BTEX and Petroleum Hydrocarbon	ıs									
Benzene	μg/L	370 ^A	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	<0.50
Toluene	μg/L	2 ^A	< 0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	μg/L	90 ^A	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	<0.50
Xylene, m & p-	μg/L	n/v	<0.50	<0.40	<0.50	<0.50	<0.50	<0.40	<0.50	<0.50
Xylene, o-	μg/L	n/v	< 0.50	<0.30	<0.50	< 0.50	< 0.50	< 0.30	<0.50	<0.50
Xylenes, Total	μg/L	n/v	< 0.75	<0.50	<0.75	< 0.75	< 0.75	<0.50	<0.75	<0.75
Methyl tert-butyl ether (MTBE)	μg/L	10,000 ^A	-	-	-	-	-	-	-	-
Styrene	μg/L	72 ^A	-	-	-	-	-	_	-	-
PHC F1 (C6-C10 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F1 (C6-C10 range) minus BTEX		n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F2 (>C10-C16 range)	μg/L	n/v	<100	<100	<100	<100	<100	<100	<100	<100
PHC F3 (>C16-C34 range)	μg/L	n/v	<250	<100	<250	<250	<250	<100	<250	<250
PHC F4 (>C34-C50 range)	μg/L	n/v	<250	<300	<250	<250	<250	<300	<250	<250
Total BTEX (Calc)	μg/L	n/v	<1.2	<300	<1.2	<1.2	<1.2	<300	<1.2	<1.2
Total Hydrocarbons (C6-C50)	μg/L	n/v	<400	<300	<400	<400	<400	<300	<400	<400
Metals, Dissolved										
Metals, Dissolved Calcium	mg/L	n/v	-	-	-	-	-	-	-	-
Metals, Dissolved Calcium Magnesium	mg/L	n/v	-	-	-	- -	-	- -	-	-
Metals, Dissolved Calcium	mg/L mg/L mg/L mg/L					- - -	- - -	- - -	- - -	- - -



Table B.5
Summary of Surface Water Analytical Results
Gordon Lake Group Sites Long-Term Monitoring Year 6

Sample Location				Field	Blank		Trip Blank				
Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	ССМЕ	12-Jun-24 GLG-2024-00001-023 STANTEC ALS YL2400658 YL2400658-008 Field Blank	11-Jul-24 GLG-2024-00002-023 STANTEC ALS YL2400890 YL2400890-007 Field Blank	22-Aug-24 GLG-2024-00003-023 STANTEC ALS YL2401272 YL2401272-008 Field Blank	11-Sep-24 GLG-2024-00004-023 STANTEC ALS YL2401469 YL2401469-008 Field Blank	12-Jun-24 GLG-2024-00001-022 STANTEC ALS YL2400658 YL2400658-007 Trip Blank	11-Jul-24	22-Aug-24	11-Sep-24 GLG-2024-00004-022 STANTEC ALS YL2401469 YL2401469-007 Trip Blank	
Metals, Total	•	•		•							
Aluminum	mg/L	0.005/0.1 _{VAR1} ^A	-	-	-	-	-	-	-	-	
Antimony	mg/L	n/v	-	-	-	-	-	-	-	-	
Arsenic	mg/L	0.005 ^A	-	-	-	-	-	-	-	-	
Barium	mg/L	n/v	-	-	_	-	-	-	_	-	
Beryllium	mg/L	n/v	-	-	-	-	-	-	-	-	
Bismuth	mg/L	n/v	-	-	-	-	-	-	-	-	
Boron	mg/L	1.5 ^A	-	-	-	-	-	-	-	-	
Cadmium	mg/L	0.00009 _{LTG} ^A	-	_	_	_	_	_	_	-	
Calcium	mg/L	n/v	_	_	_	_	_	_	_	_	
Cesium	mg/L	n/v	-	_	_	_	-	_	_	-	
Chromium	mg/L	n/v	-	_	_	_	-	_	_	-	
Cobalt	mg/L	n/v	-	-	_	-	-	-	_	-	
Copper	mg/L	0.002/0.004 _{TBC1} A	-	-	_	_	-	_	_	-	
Iron	mg/L	0.3 ^A	_	_	_	_	_	_	_	_	
Lead		0.001/0.007 _{TBC1} A									
	mg/L		_	-	-	-	-	-	-	-	
Lithium	mg/L	n/v n/v	-	-	-	-	-	-	-	-	
Magnesium Manganese	mg/L mg/L	n/v	-	-	-	-	-	-	-	-	
_			_	-	-	-	-	-	-	-	
Mercury	mg/L	0.000026 ^A	-	-	-	-	-	-	-	-	
Molybdenum	mg/L	0.073 ^A	-	-	-	-	-	-	-	-	
Nickel	mg/L	0.025/0.15 _{TBC1} A	-	-	-	-	-	-	-	-	
Phosphorus	mg/L	n/v	-	-	-	-	-	-	-	-	
Potassium	mg/L	n/v	-	-	-	-	-	-	-	-	
Rubidium	mg/L	n/v	-	-	-	-	-	-	-	-	
Selenium	mg/L	0.001 ^A	-	-	-	-	-	-	-	-	
Silicon	mg/L	n/v	-	-	-	-	-	-	-	-	
Silver	mg/L	0.00025 ^A	-	-	-	-	-	-	-	-	
Sodium	mg/L	n/v	-	-	-	-	-	-	-	-	
Strontium	mg/L	n/v	-	-	-	-	-	-	-	-	
Sulfur	mg/L	n/v	-	-	-	-	-	-	-	-	
Tellurium	mg/L	n/v	-	-	-	-	-	-	-	-	
Thallium	mg/L	0.0008 ^A	-	-	-	-	-	-	-	-	
Thorium	mg/L	n/v	-	-	-	-	-	-	-	-	
Tin	mg/L	n/v	-	-	-	-	-	-	-	-	
Titanium	mg/L	n/v	-	-	-	-	-	-	-	-	
Tungsten	mg/L	n/v	-	-	-	-	_	-	_	-	
Uranium	mg/L	0.015 ^A	-	-	-	-	-	-	-	-	
Vanadium	mg/L	n/v	-	-	-	-	-	-	-	-	
Zinc	mg/L	n/v	-	-	-	-	-	-	_	-	
Zirconium	mg/L	n/v	_	-	-	-	_	-	-	-	



Table B.5 Summary of Surface Water Analytical Results Gordon Lake Group Sites Long-Term Monitoring Year 6

CCME Canadian Council of Ministers of the Environment

Canadian Environmental Quality Guidelines, Canadian Water Quality Guidelines for the Protection of Aquatic Life - Freshwater Aquatics Long Term

6.5^A Concentration exceeds the indicated standard.

2 Measured concentration did not exceed the indicated standard.

< 0.50 Laboratory reporting limit was greater than the applicable standard.

<0.03 Analyte was not detected at a concentration greater than the laboratory reporting limit.</p>

n/v No standard/guideline value.

Parameter not analyzed / not available.

The CWQG for cadmium (i.e. long-term guideline) of 0.09 μg·L-1 is for waters of 50 mg CaCO3·L-1 hardness. The CWQG for cadmium is related to water hardness (as CaCO3): When the water hardness is > 0 to < 17 mg/L, the CWQG is 0.04 μg/L; at hardness ≥ 17 to ≤ 280 mg/L, the CWQG is 0.37 μg/L.

Guideline is expressed as Nitrite (as N) in ug/L. This value is equivalent to 197 ug/L for Nitrite.

Narrative: Clear flow - Maximum increase of 25 mg/L from background levels for any short-term exposure (e.g., 24-h period). Maximum average increase of 5 mg/L from background levels for longer term exposures (e.g., inputs lasting between 24 h and 30 d).

High flow - Maximum increase of 25 mg/L from background levels at any time when background levels are between 25 and 250 mg/L. Should not increase more than 10% of background levels when background is ≥ 250 mg/L.

TBC1 Value is minimum value available. Sample-specific value to be calculated (equation).

To be calculated (equation), then the present guideline values (mg/L NH3) can be converted to mg/L total ammonia-N by multiplying the corresponding guideline value by 0.8224.

Variable, 5 μ g/L if pH < 6.5 and 100 μ g/L if pH > 6.5

HTA The sample was prepared and/or analyzed past the recommended holding time.

RRV Reported result verified by repeat analysis.

BFD Blind Field Duplicate

RPD Relative Percent Difference.

61% RPD exceeds data quality objective of 40%.

nc RPD is not calculated if one or more values is not detected or if one or more values is less than five times the reportable detection limit.



Appendix C Photographic Log February 28, 2025

Appendix C Photographic Log







Long-Term Monitoring Report – Year 6 Client: **Public Services and** Project:

Procurement Canada

Site Name: **Gordon Lake Group of Sites Site Location: Burnt Island**

Photo Number:

Photo Location:

Burnt Island

Direction:

West

Survey Date:

7/11/2024

Comments:

Aerial view of waste rock

area



Photo Number:

Photo Location:

Burnt Island

Direction:

Northwest

Survey Date: 7/11/2024

Comments:

Aerial view of

covered tailings area







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Burnt Island

Photo Number:

3

Photo Location:

Burnt Island

Direction:

West

Survey Date:

6/14/2024

Comments:

View of backfilled portal, facing uphill, minimal revegetation



Photo Number:

4

Photo Location:

Burnt Island

Direction:

Southeast

Survey Date:

6/14/2024

Comments:

View of backfilled portal, facing downhill, evidence of settlement







Long-Term Monitoring Client: **Public Services and** Project:

Report - Year 6 **Procurement Canada**

Site Name: **Gordon Lake Group of Sites** Site Location: **Burnt Island**

Photo Number:

Photo Location:

Burnt Island

Direction:

Northwest

Survey Date:

6/14/2024

Comments:

View of shaft area, evidence of settlng in southwest plug

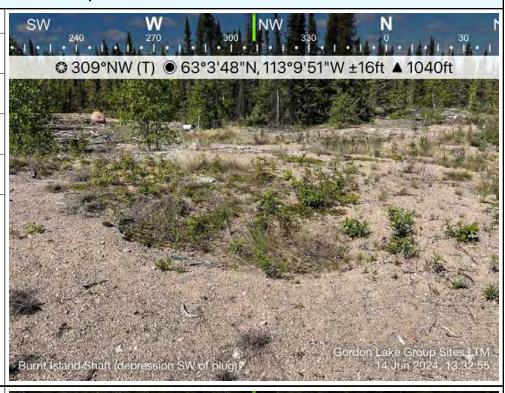


Photo Number:

Photo Location:

Burnt Island

Direction:

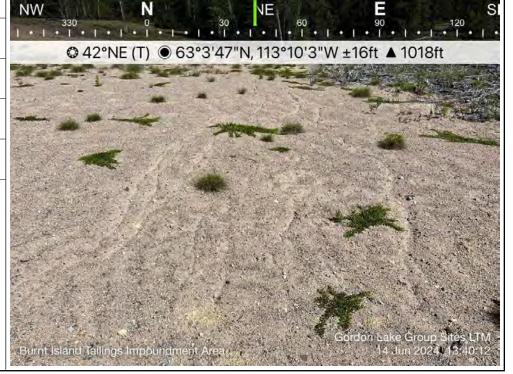
Northeast

Survey Date:

6/14/2024

Comments:

View of covered tailings area with evidence of water flow on the surface







Client: **Public Services and**

Procurement Canada

Project:

Long-Term Monitoring Report – Year 6

Site Name: **Gordon Lake Group of Sites** **Site Location:**

Burnt Island

Photo Number:

Photo Location:

Burnt Island

Direction:

Survey Date:

6/14/2024

Comments:

View of covered tailings area with evidence of water flow on the surface



Photo Number:

Photo Location:

Burnt Island

Direction:

Southeast

Survey Date: 6/14/2024

Comments:

View of covered tailings area with an animal burrow







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Burnt Island

Photo Number:

9

Photo Location:

Burnt Island

Direction:

Southest

Survey Date:

6/14/2024

Comments:

View of covered tailings area with an minimal revegetation observed



Photo Number:

10

Photo Location:

Burnt Island

Direction:

Southwest

Survey Date:

6/14/2024

Comments:

View of waste rock at BUR-WR-01, minimal revegetation observed







Client: Public Services and Project: Long-Term Monitoring Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Burnt Island

Photo Number:

11

Photo Location:

Burnt Island

Direction: Northwest

Survey Date: 7/11/2024

Comments:

View from the shore of SNP 2016-11a







Long-Term Monitoring Report – Year 6 Client: **Public Services and** Project:

Procurement Canada

Site Name: **Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island**

Photo Number:

12

Photo Location:

Camlaren

Direction:

North

Survey Date:

6/14/2024

Comments:

Aerial view of Camlaren and the TSCA



Photo Number:

13

Photo Location:

Camlaren

Direction:

South

Survey Date:

6/14/2024

Comments:

Aerial view of Camlaren and the TSCA







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

14

Photo Location:

Camlaren

Direction:

West

Survey Date:

6/14/2024

Comments:

Aerial view of Camlaren and the TSCA



Photo Number:

15

Photo Location:

Camlaren

Direction:

South

Survey Date:

6/14/2024

Comments:

View of CAM-SO-03, no evidence of erosion, some revegetation







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

16

Photo Location:

Camlaren

Direction:

North

Survey Date:

8/20/2024

Comments:

View of CAM-SO-04, evidence of animal burrowing and overland flow, some revegetation



Photo Number:

17

Photo Location:

Camlaren

Direction:

North

Survey Date:

8/20/2024

Comments:

View of CAM-SO-07, no evidence of erosion, some revegetation







Client: Public Services and Project: Long-Term Monitoring
Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

18

Photo Location:

Camlaren

Direction:

Southeast

Survey Date: 6/14/2024

Comments:

View of CAM-SO-01, evidence of animal burrowing, some revegetation observed



Photo Number:

19

Photo Location:

Camlaren

Direction:

North

Survey Date: 12/5/2024

Comments:

View of CAM-SO-05, evidence of staining, minimal revegetation







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

20

Photo Location:

Camlaren

Direction:

West

Survey Date:

6/14/2024

Comments:

View of CAM-SO-06, evidence of overland water flow, erosion, and animal burrowing, minimal revegetation observed

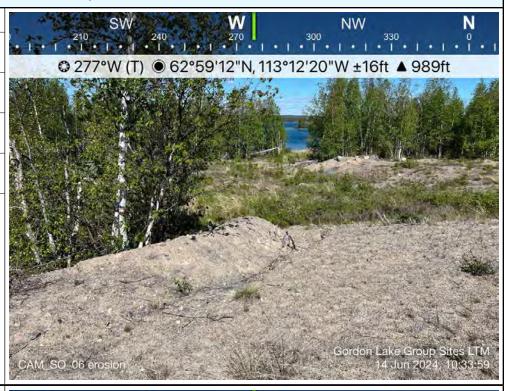


Photo Number:

21

Photo Location:

Camlaren

Direction:

Northest

Survey Date:

6/14/2024

Comments:

View of CAM-SO-08, some revegetation observed







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

22

Photo Location:

Camlaren

Direction:

North

Survey Date:

6/14/2024

Comments:

View of CAM-SO-20, some revegetation observed

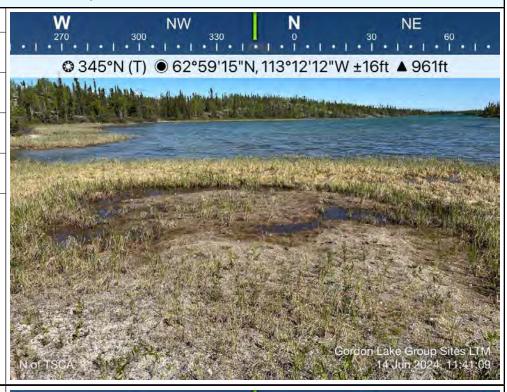


Photo Number:

23

Photo Location:

Camlaren

Direction:

South

Survey Date:

6/14/2024

Comments:

View of CAM-SO-14, some revegetation observed







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

24

Photo Location:

Camlaren

Direction:

South

Survey Date:

6/14/2024

Comments:

View of CAM-SO-12 Minimal revegetation

observed



Photo Number:

25

Photo Location:

Camlaren

Direction:

West

Survey Date:

9/11/2024

Comments:

Evidence of bear digging in TSCA. Animal burrow is about 1.5 m long and 1 m deep. Bear claw marks observed







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

26

Photo Location:

Camlaren

Direction:

West

Survey Date:

9/11/2024

Comments:

Evidence of water runoff near the approximate location of SNP 2016-8c



Photo Number:

27

Photo Location:

Camlaren

Direction:

West

Survey Date:

9/11/2024

Comments:

Evidence of animal burrow on TSCA, approximately 40 cm long and 50 cm deep







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

28

Photo Location:

Camlaren

Direction:

Northwest

Survey Date:

9/11/2024

Comments:

Exposed liner on TSCA.

Potentially dug up by

animals



Photo Number:

29

Photo Location:

Camlaren

Direction:

Northwest

Survey Date:

9/11/2024

Comments:

Evidence of animal burrow on TSCA, approximately 40 cm long and 50 cm deep







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

30

Photo Location:

Camlaren

Direction:

Northeast

Survey Date: 9/11/2024

0/11/2021

Comments:

Evidence of animal burrow on TSCA, approximately 10 cm long and 15 cm deep



Photo Number:

31

Photo Location:

Camlaren

Direction:

North

Survey Date:

9/11/2024

Comments:

Evidence of animal burrow on TSCA, approximately 60 cm long and 50 cm deep







Client: **Public Services and** Project:

Procurement Canada

Long-Term Monitoring Report - Year 6

Site Name: **Gordon Lake Group of Sites** Site Location:

Camlaren and Zenith Island

Photo Number:

32

Photo Location:

Camlaren

Direction:

East

Survey Date:

6/12/2024

Comments:

Evidence of settling observed on the TSCA



Photo Number:

Photo Location:

Camlaren

Direction:

Noth

Survey Date: 7/11/2024

Comments:

K'alo Stantec personnel

troubleshooting and

servicing VB3







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

34

Photo Location:

Camlaren

Direction:

West

Survey Date:

7/11/2024

Comments:

K'alo Stantec personnel troubleshooting and

servicing VB1



Photo Number:

35

Photo Location:

Camlaren

Direction:

West

Survey Date:

7/11/2024

Comments:

K'alo Stantec personnel

troubleshooting and

servicing VT1







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

36

Photo Location:

Camlaren

Direction:

West

Survey Date:

7/10/2024

Comments:

K'alo Stantec personnel sampling groundwater from MW1



Photo Number:

37

Photo Location:

Camlaren

Direction:

East

Survey Date:

7/10/2024

Comments:

K'alo Stantec personnel sampling groundwater from MW3







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

38

Photo Location:

Camlaren

Direction:

Southeast

Survey Date:

7/10/2024

Comments:

K'alo Stantec personnel sampling groundwater from

MW4



Photo Number:

39

Photo Location:

Camlaren

Direction:

East

Survey Date:

7/10/2024

Comments:

K'alo Stantec personnel sampling groundwater from MW6







Project: **Long-Term Monitoring** Client: **Public Services and**

Report - Year 6 **Procurement Canada**

Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island Site Name:

Photo Number:40

Photo Location:

Camlaren

Direction: South

Survey Date:

7/10/2024

Comments: View of a dry SNP

2016-8b



Photo Number:

Photo Location:

Camlaren

Direction:

East

Survey Date: 7/10/2024

Comments:

View of a dry SNP 2016-8a







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

42

Photo Location:

Camlaren

Direction:

Northwest

Survey Date:

7/10/2024

Comments:

View from the shore of SNP 2016-11b1



Photo Number:

43

Photo Location:

Camlaren

Direction:

East

Survey Date:

7/10/2024

Comments:

View from the shore of SNP 2016-11b2







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

44

Photo Location:

Camlaren

Direction:

North

Survey Date:

7/10/2024

Comments:

View from the shore of SNP 2016-11b3



Photo Number:

45

Photo Location:

Camlaren

Direction:

West

Survey Date:

7/10/2024

Comments:

View from the shore of SNP 2016-11b4







Client: Public Services and Project: Long-Term Monitoring
Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

46

Photo Location:

Zenith Island

Direction:

South

Survey Date:

7/11/2024

Comments:

Aerial view of Zenith Island



Photo Number:

47

Photo Location:

Zenith Island

Direction:

Northeast

Survey Date:

8/22/2024

Comments:

View of backfill material at CAM-SO-23. No revegetation







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Camlaren and Zenith Island

Photo Number:

48

Photo Location:

Zenith Island

Direction:

West

Survey Date:

8/22/2024

Comments:

View of backfill material at CAM-SO-23. Minimal revegetation



Photo Number:

49

Photo Location:

Zenith Island

Direction:

South

Survey Date:

8/22/2024

Comments:

View from the shore of SNP 2016-11c







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Kidney Pond

Photo Number:50

Photo Location:

Kidney Pond

Direction: Northeast

Survey Date: 7/11/2024

Comments:

Aerial view of Kidney Pond



Photo Number:

51

Photo Location:

Kidney Pond

Direction:

Northwest

Survey Date:

8/22/2024

Comments:

View of the backfilled portal. Some rills observed







Long-Term Monitoring Client: **Public Services and** Project:

Report - Year 6 **Procurement Canada**

Site Name: **Gordon Lake Group of Sites** Site Location: **Kidney Pond**

Photo Number:

52

Photo Location:

Kidney Pond

Direction:

Northeast

Survey Date: 8/22/2024

Comments:

View of the backfilled portal with some settling observed. KID-SO-07 is observed at the base of the backfilled material. no revegetation



Photo Number:

Photo Location:

Kidney Pond

Direction:

Northeast

Survey Date:

9/11/2024

Comments:

Evidence of water flow on

KID-WR-01







Client: **Public Services and** Project:

Long-Term Monitoring Report - Year 6 **Procurement Canada**

Kidney Pond Site Name: **Gordon Lake Group of Sites** Site Location:

Photo Number:

54

Photo Location:

Kidney Pond

Direction:

Northeast

Survey Date: 9/11/2024

Comments:

Rust-coloured staining observed on KID-WR-01



Photo Number:

Photo Location:

Kidney Pond

Direction:

East

Survey Date:

9/11/2024

Comments:

View of KID-WR-03





Public Services and Project: **Long-Term Monitoring** Client: Report - Year 6 **Procurement Canada** Site Name: **Gordon Lake Group of Sites Site Location: Kidney Pond** N NE SE **Photo Number:** 56 12 N 381652 6982664 ±5m ▲ 290m **Photo Location:** Kidney Pond Direction: Northeast **Survey Date:** 7/11/2024 Comments: View from the shore of SNP 2016-11d NP2016-11d Tarek Ghadieh





Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Treacy

Photo number:

57

Photo Location:

Treacy

Direction:

Northwest

Survey Date: 9/11/2024

Comments:

Aerial view of Treacy



Photo number:

58

Photo Location:

Treacy

Direction:

Northwest

Survey Date:

9/11/2024

Comments:

View of backfilled east trench facing uphill







Client: Public Services and

Procurement Canada

Project: 1Long-Term Monitoring

Report – Year 6

Site Name: Gordon Lake Group of Sites

Site Location: Treacy

Photo number:

59

Photo Location:

Treacy

Direction:

Northwest

Survey Date:

9/11/2024

Comments:

View of backfilled area TRE-SO-01, some grassy

revegetation



Photo number:

60

Photo Location:

Treacy

Direction:

West

Survey Date:

9/11/2024

Comments:

View of backfilled area TRE-SO-01, healthy revegetation observed







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Treacy

Photo number:

61

Photo Location:

Treacy

Direction:

Northwest

Survey Date:

9/11/2024

Comments:

View of backfilled area west trench, sparse revegetation



Photo number:

62

Photo Location:

Treacy

Direction:

Southwest

Survey Date:

8/22/2024

Comments:

View of backfilled area west trench, sparse revegetation







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: Treacy

Photo number:

63

Photo Location:

Treacy

Direction:

Southeast

Survey Date:

8/22/2024

Comments:

View from shore at SNP

2016-11e







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: West Bay

Photo Number:

64

Photo Location:

West Bay

Direction:

West

Survey Date:

9/11/2024

Comments:

Aerial view of WES-WR-01



Photo Number:

65

Photo Location:

West Bay

Direction:

West

Survey Date:

6/13/2024

Comments:

Aerial view of WES-WR-02







Procurement Canada Report – Year 6

Site Name: Gordon Lake Group of Sites Site Location: West Bay

Photo Number:

66

Photo Location:

West Bay

Direction:

South

Survey Date:

6/13/2024

Comments:

Aerial view of open pit



Photo Number:

67

Photo Location:

West Bay

Direction:

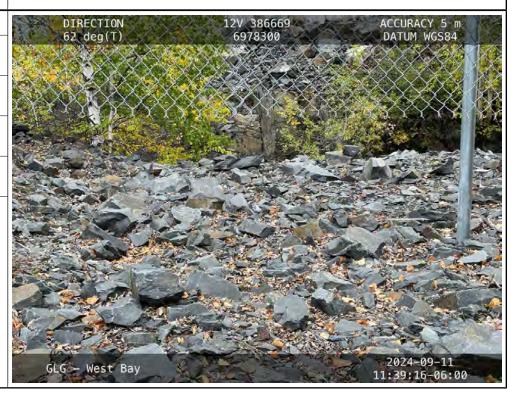
East

Survey Date:

9/11/2024

Comments:

View of large gaps under fence surrounding open pit





Procurement Canada Report - Year 6

Site Name: Gordon Lake Group of Sites Site Location: West Bay

Photo Number:

68

Photo Location:

West Bay

Direction:

Northwest

Survey Date: 9/11/2024

Comments:

View of damaged fence surrounding open pit



Photo Number:

69

Photo Location:

West Bay

Direction:

North

Survey Date:

9/11/2024

Comments:

View from the shore of SNP 2016-11f





Long-Term Monitoring Report – Year 6 Client: **Public Services and** Project:

Procurement Canada

Kidney Pond Site Name: **Gordon Lake Group of Sites Site Location:**

Photo Number:

70

Photo Location:

Kidney Pond

Direction:

n/a

Survey Date: 6/13/2024

Comments:

Aerial view of rust-coloured staining at KID_WR_01



Appendix D Inspection Forms



	Visual Monitoring	and Inspection Form		
	Projec	t Details		
Date	14-Jun-24		Time	13:10
Weather	Sunny, calm, 15°C			
Rainfall in the last 24 hours	No		Inspected by	MC, NN
	Burn	t Island		
LTM Station	Portal	Tailings	Mine Shaft	BUR_WR_01
GPS Coordinates (12V)	390770E 6994470N	390463E 6994482N	390630E 6994509N	390800E 6994450N
Condition of Backfilled Excavation (circle one)	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR
If POOR - Why?				
Evidence of Environmental Concern	YES / NO	YES / NO	YES / NO	YES / NO
If YES - outline concern (e.g. erosion, rutting, settlement, cracking, slumping, ponding, drainage paths, signs of contamination)	Deep pockets noted at top of backfilled area. Estimated > 0.3m deep x 1.5 m wide.	Small rills observed through the area. An animal burrow was observed (10 cm across and about 10 cm deep).	Small depression observed southwest of the shaft.	No staining noted downagradient of, or on wasterock pile and no evidence of seepage.
Vegetation re-establishment and percentage cover	Some revegetation on periferies of the area.	Some revegetation on periferies of the area.	Some vegetation regrowth.	Minimsl revegetation.
Follow-up Monitoring Required? (circle one)	YES / NO	YES / NO	YES / NO	YES / NO
If YES, provide details on what follow up is required.	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed
Phase I LTM frequency	Quadrennially	Biennially	Quadrennially	Quadrennially
Photo reference number	3, 4	6, 7, 8, 9	5	10



	Visual Monitoring	and Inspection Form					
	Project Details						
Date	11-Sep-24		Time	14:00			
Weather	Sunny, calm, 10°C						
Rainfall in the last 24 hours	No		Inspected by	JM, MC			
	Burn	t Island					
LTM Station	Portal	Tailings	Mine Shaft	BUR_WR_01			
GPS Coordinates (12V)	390770E 6994470N	390463E 6994482N	390630E 6994509N	390800E 6994450N			
Condition of Backfilled Excavation (circle one)	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR			
If POOR - Why?							
Evidence of Environmental Concern	YES / NO	YES / NO	YES / NO	YES / NO			
If YES - outline concern (e.g. erosion, rutting, settlement, cracking, slumping, ponding, drainage paths, signs of contamination)	Deep pockets noted at top of backfilled area. Estimated > 0.3m deep x 1.5 m wide.	Small rills observed through the area. An animal burrow was observed (10 cm across and about 10 cm deep).	Small depression observed southwest of the shaft.	No staining noted downagradient of, or on wasterock pile and no evidence of seepage.			
Vegetation re-establishment and percentage cover	Some revegetation on periferies of the area.	Some revegetation on periferies of the area.	Some vegetation regrowth.	Minimsl revegetation.			
Follow-up Monitoring Required? (circle one)	YES / NO	YES / NO	YES / NO	YES / NO			
If YES, provide details on what follow up is required.	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed			
Phase I LTM frequency	Quadrennially	Biennially	Quadrennially	Quadrennially			
Photo reference number	3, 4	6, 7, 8, 9	5	10			



Visual Monitoring and Inspection Form **Project Details** 10:30 14-Jun-24 Time Date Weather Sunny, calm, 15°C Rainfall in the last 24 hours Inspected by: MC, NN Camlaren and Zenith Island LTM Station CAM SO 01 CAM SO 03 CAM SO 04 CAM SO 05 CAM SO 06 CAM SO 07 CAM SO 08 CAM SO 12 CAM SO 14 CAM SO 20 CAM SO 23 388185E 388203E 388261E 388249E 388223E 388248E 388226E 388300E 388219E 388361E 386774E GPS Coordinates (12V) 6985512N 6986016N 6985983N 6985964N 6985952N 6986102N 6986005N 6986000N 6985893N 6986167N 6986134N Condition of Backfilled GOOD / POOR Excavation (circle one) If POOR - Why? Evidence of Environmental YES / NO Concern No signs of No signs of Evidence of If YES - outline concern (e.g. Signs of overland overland flow or overland flow or overland flow, No signs of erosion, rutting, settlement, flow, about 30 Drainage to the overland flow or overland flow or erosion on overland flow or erosion on about 1 m wide. overland flow or overland flow or overland flow or cracking, slumping, ponding, cm wide. Some north into backfilled area erosion on backfilled area. and errosion. erosion on erosion on erosion on erosion on erosion on drainage paths, signs of Gordon Lake animal backfilled area. backfilled area backfilled area. backfilled area. backfilled area. backfilled area. Evidence of Evidence of Some animal contamination) burrowing. animal burrowing staining burrowing. Good Approximately revegetation of Sparse Sparse Sparse Sparse Sparse 20% alder and revegetation on revegetation on revegetation on revegetation on revegetation on Some 90% Minimal Sparse Vegetation re-establishment and revegetation. central backfilled central backfilled central backfilled central backfilled central backfilled arasses revegetation revegetation revegetation revegetation. percentage cover Observed observed. area. Some area. Some area. Some area. Some area. Some observed. observed Grasses. observed. willows, fireweed Approximately saplings saplings saplings saplings saplings and grasses. 60%. Follow-up Monitoring Required? YES / NO (circle one) Unknown, Phase Unknown, Phase Unknown, Phase Unknown, Phase Unknown, Phase Jnknown, Phase Unknown, Phase Unknown, Phase Unknown, Phase Unknown, Phase Unknown, Phase If YES, provide details on what II of LTM is follow up is required. needed Phase I LTM frequency Biennially Photo reference number 18 15 16 19 20 17 21 24 23 22 47, 48



	T				Project Details						
Date	14-Jun-24				Time	10:30					
Weather	Sunny, calm, 10°0	2									
Rainfall in the last 24 hours	No				Inspected by:	MC, NN					
				Car	nlaren and Zenith	Island					
LTM Station	CAM_SO_01	CAM_SO_03	CAM_SO_04	CAM_SO_05	CAM_SO_06	CAM_SO_07	CAM_SO_08	CAM_SO_12	CAM_SO_14	CAM_SO_20	CAM_SO_23
GPS Coordinates (12V)	388185E 6986102N	388203E 6986005N	388261E 6986000N	388249E 6986016N	388223E 6985983N	388248E 6985964N	388226E 6985952N	388300E 6985893N	388219E 6986167N	388361E 6986134N	386774E 6985512N
Condition of Backfilled Excavation (circle one)	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR
If POOR - Why?											
Evidence of Environmental Concern	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO
If YES - outline concern (e.g. erosion, rutting, settlement, cracking, slumping, ponding, drainage paths, signs of contamination)	No signs of overland flow or erosion on backfilled area. Evidence of animal burrowing	No signs of overland flow or erosion on backfilled area.	Signs of overland flow, about 30 cm wide. Some animal burrowing.	No signs of overland flow or erosion on backfilled area. Evidence of staining	Evidence of overland flow, about 1 m wide, and errosion. Some animal burrowing.	No signs of overland flow or erosion on backfilled area.	No signs of overland flow or erosion on backfilled area.	No signs of overland flow or erosion on backfilled area.	No signs of overland flow or erosion on backfilled area.	Drainage to the north into Gordon Lake	No signs of overland flow or erosion on backfilled area.
Vegetation re-establishment and percentage cover	Good revegetation of alder and grasses observed. Approximately 60%.	Approximately 20% revegetation. Observed willows, fireweed and grasses.	Sparse revegetation on central backfilled area. Some saplings	Sparse revegetation on central backfilled area. Some saplings	Sparse revegetation on central backfilled area. Some saplings	Sparse revegetation on central backfilled area. Some saplings	Sparse revegetation on central backfilled area. Some saplings	Sparse revegetation observed.	Some revegetation observed	90% revegetation. Grasses.	Minimal revegetation observed.
Follow-up Monitoring Required? (circle one)	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO
If YES, provide details on what follow up is required.	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed
Phase I LTM frequency	Biennially	Biennially	Biennially	Biennially	Biennially	Biennially	Biennially	Biennially	Biennially	Biennially	Biennially
Photo reference number	18	15	16	19	20	17	21	24	23	22	47, 48



Visual Monitoring and Inspection Form Project Details Date 11-Sep-24 Time 10:40 Weather Sunny, calm, 10°C Rainfall in the last 24 hours Inspected by JM. MC **Kidney Pond** LTM Station KID WR 01 KID WR 03 KID WR 04 KID SO 07 KID SO 10 KID SO 11 Portal 381487E 381522E 381562E 381539E GPS Coordinates (12V) 6982725N 6982701N 6982787N 6982744N Condition of Backfilled **GOOD / POOR** GOOD / POOR Excavation (circle one) If POOR - Why? Evidence of Environmental YES / NO Concern If YES - outline concern (e.g. erosion, rutting, settlement, Evidnce of overland Evidnce of overland Evidnce of overland Not located during Not located during Not located during cracking, slumping, ponding, water flow and No issues observed water flow and program water flow observed program program drainage paths, signs of staining observed settling observed contamination) Vegetation re-establishment Minimal vegetation Minimal vegetation Not located during Minimal vegetation Not located during Not located during Minimal vegetation and percentage cover observed observed program observed program program observed Follow-up Monitoring YES / NO Required? (circle one) If YES, provide details on Unknown, Phase II what follow up is required. of LTM is needed Biennially Biennially Biennially Biennially Quadrennially Quadrennially Quadrennially Phase I LTM frequency 55 52 Photo reference number 53, 54 51



Visua	l Monitoring and Ins	pection Form		
	Project Details	3		
Date	11-Sep-24		Time	13:10
Weather	Sunny, calm, 10°C			
Rainfall in the last 24 hours	No		Inspected by	JN, MC
	Treacy			
LTM Station	TRE_SO_01	TRE_SO_02	East Trench	West Trench
GPS Coordinates (12V)	381398E 6981183N	381398E 6981185N	381397E 6981166N	381370E 6981168N
Condition of Backfilled Excavation (circle one)	GOOD / POOR	GOOD / POOR	GOOD / POOR	GOOD / POOR
If POOR - Why?				
Evidence of Environmental Concern	YES / NO	YES / NO	YES / NO	YES / NO
If YES - outline concern (e.g. erosion, rutting, settlement, cracking, slumping, ponding, drainage paths, signs of contamination)	No evidence of overland flow or errosion observed	No evidence of overland flow or errosion observed	No evidence of overland flow or errosion observed	No evidence of overland flow or errosion observed
Vegetation re-establishment and percentage cover	Some scattered grasses and low vegetation, ~5%	Revegetation of alders and low shrubs, ~50%	Some scattered grasses and low shrubs, ~10%	None observed
Follow-up Monitoring Required? (circle one)	YES / NO	YES / NO	YES / NO	YES / NO
If YES, provide details on what follow up is required.	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed
Phase I LTM frequency	Biennially	Biennially	Quadrennially	Quadrennially
Photo reference number	59, 60		58	61, 62



Visual Monitor	ing and Inspection Fo	orm					
Pi	roject Details						
Date	11-Sep-24	Time	13:10				
Weather	Sunny, calm, 10°C						
Rainfall in the last 24 hours	No	Inspected by	MC, NN				
West Bay							
LTM Station	Open Pit	WES_WR_01	WES_WR_02				
GPS Coordinates (12V)	386669E 6978300N						
Condition of Backfilled Excavation (circle one)	GOOD / POOR	GOOD / POOR	GOOD / POOR				
If POOR - Why?							
Evidence of Environmental Concern	YES / NO	YES / NO	YES / NO				
If YES - outline concern (e.g. erosion, rutting, settlement, cracking, slumping, ponding, drainage paths, signs of contamination)	Fencing surrounding the open pit is falling over in spots, and large gaps under the fence were observed in several areas	No errosion or staining issues observed	Topographic low idnetified with fine grained material.				
Vegetation re-establishment and percentage cover	No revegetation observed	No revegetation observed	No revegetation observed				
Follow-up Monitoring Required? (circle one)	YES / NO	YES / NO	YES / NO				
If YES, provide details on what follow up is required.	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed	Unknown, Phase II of LTM is needed				
Phase I LTM frequency	Quadrennially	Quadrennially	Quadrennially				
Photo reference number	66	64	65				



Appendix E Daily Reports



Gordon Lake Group Sites Daily Report				
Client:	PSPC/CIRNAC	Report Date:	June 12, 2024	
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec	
Stantec Project Number	oject Number 123515016		07:00-19:00	
Weather:	13°C, Mainly Sunny	Report by:	Natalie Normandeau	
Company	Total # of Workers	# of Aboriginal Workers	Note:	

Company	lotal # of workers	# of Aboriginal Workers	Note:
Acasta	1	0	None.
Ek'edia	1	1	
Stantec	2	0	
Personnel:			
Name		Position	
Natalie Normandeau K'alo-Stantec Field Lead		ead	

Name	Position
Natalie Normandeau	K'alo-Stantec Field Lead
Magda Celejewski	K'alo-Stantec Field Crew
Peter Crookedhand	Ek'edia Wildlife Monitor
Rudi Toteaver	Acasta Pilot

Communications

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on June 11, 2024. Great Slave Helicopters advised that two helicopters would be in the Gordon Lake area on June 12, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site.
Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:30 and arrived at Camlaren at 09:15 Helicopter departed Camlaren at 16:20 and arrived at Yellowknife Acasta at 17:00.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure. Completed tailgate safety meeting including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at Camlaren.

HSSE Leading Indicator/Report	Report/Incident Description	Recommended Action
Submission Type		
	landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
		Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

Summary of Site Activities

Completed Day 1 of 3 of the field program. Planned scope of work for the day included groundwater monitoring and sampling of two wells inside the TSCA perimeter and four wells

Activities			
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommendation
Burnt Island	Visual Assessment	[June 12, 2024] None.	To be completed during subsequent field progam event site visit.
	Surface Water Monitoring and	[June 12, 2024] None.	To be completed during subsequent fie progam event site visit.
Camlaren (TSCA)	TSCA Visual Assessment and Instrumentation Monitoring	[June 12, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements.	Data to be downloaded from VB1, VB2 VB3, VT1, and VT2 during subsequent sit visit.
	SNP Groundwater Monitoring and Sampling	[June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Attempt to remove the bailer from MW during a subsequent field program eve site visit. If the removal is successful, complete groundwater monitoring and sampling at MW5.
	Surface Water Monitoring and Sampling	[June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b therefore no samples were collected.	Surface water sampling at SNP2016-11t SNP2016-11b2, SNP2016-11b3, and SNP2 11b4 to be completed during subseque field program event site visit.
Camlaren (Zenith Island)	Visual Assessment	[June 12, 2024] None.	To be completed during subsequent fie progam event site visit.
	Surface Water Monitoring and	[June 12, 2024] None.	To be completed during subsequent fie progam event site visit.
Kidney Pond	Visual Assessment	[June 12, 2024] None.	To be completed during subsequent fie progam event site visit.
	Surface Water Monitoring and	[June 12, 2024] None.	To be completed during subsequent fie progam event site visit.
Treacy	Visual Assessment	[June 12, 2024] None.	To be completed during subsequent fir progam event site visit.
	Surface Water Monitoring and	[June 12, 2024] None.	To be completed during subsequent fie program event site visit.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommen
West Bay	Surface Water Monitoring and	[June 12, 2024] None.	To be completed during subsequent fie progam event site visit.
pling Completed:			
Burnt Island	[June 12, 2024] None.		
Camlaren (TSCA)	[June 12, 2024] GLG-2	2024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024	-00001-004, GLG-2024-00001-006
Camlaren (Zenith Island)	[June 12, 2024] None.		
Kidney Pond	[June 12, 2024] None.		
Treacy	[June 12, 2024] None.		
West Bay	[June 12, 2024] None.		
Quality Control	[June 12, 2024] GLG-2	2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-20)24-00001-020 (groundwater BFD)
Samples Not Collected	[June 12 2024] GLG	2024-00001-007, GLG-2024-00001-008	

Regulatory Concerns None.

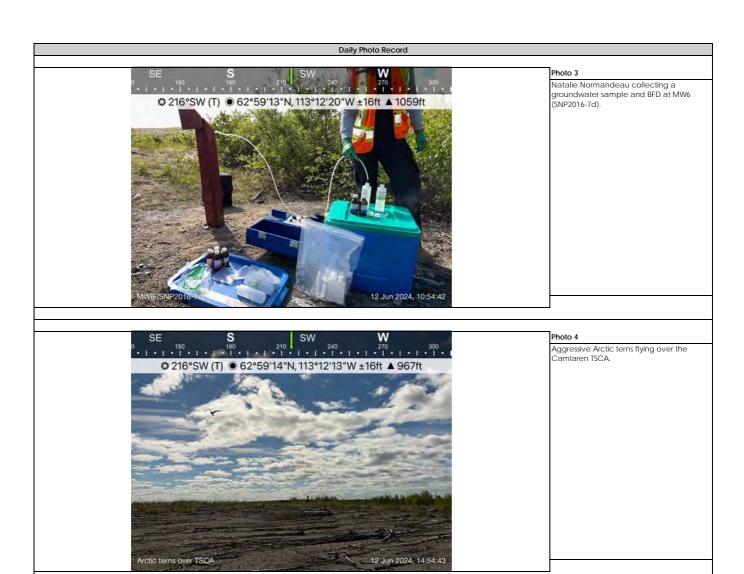
Daily Photo Record



Vibrating wire thermistor VT2 datalogger .



Magda Celejewski setting up groundwater monitoring and sampling equipment at well MW6 (SNP2016-8d).



Gordon Lake Group Sites Daily Report				
Client:	PSPC/CIRNAC	Report Date:	June 13, 2024	
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec	
Stantec Project Number	123515016	Day Shift Hours	07:00-19:00	
Weather:	18°C, Mainly Sunny	Report by:	Natalie Normandeau	

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	None.
Ek'edia	1	1	
Stantec	2	0	

Personnel:

Name	Position
Natalie Normandeau	K'alo-Stantec Field Lead
Magda Celejewski	K'alo-Stantec Field Crew
Peter Crookedhand	Ek'edia Wildlife Monitor
Andrew Ridsdale	Acasta Pilot

Communications:

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on June 11, 2024. Acasta pilot followed call out procedures upon arrival to and departure from site.

Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:45 and arrived at Kidney Pond at 09:20.

Helicopter departed Kidney Pond at 10:30 and arrived at Treacy at10:40.

Helicopter departed Treacy at 11:15 and arrived a Burnt Island at 11:30.

Helicopter departed Burnt Island at 12:10 and arrived at Zenith Island at 12:25.

Helicopter departed Zenith Island at 12:55 and arrived at West Bay at 13:10. Helicopter departed West Bay at 13:55 and arrived at Yellowknife Acasta at 14:30.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure.

Completed tailgate safety meeting including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at Kidney Pond.

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

Summary of Site Activities

Completed Day 2 of 3 of the field program. Planned scope of work for the day included surface water monitoring and sampling at Burnt Island, Kidney Pond, Treacy, West Bay, and Zenith Island; and visual monitoring for erosion and vegetative health at Kidney Pond, Treacy, West Bay, and Zenith Island.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommentation
Burnt Island	Visual Assessment	[June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016- 11a. [June 12, 2024] None.	Scope complete.
Camlaren (TSCA)	TSCA Visual Assessment and Instrumentation Monitoring	[June 13, 2024] None. [June 12, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements.	Data to be downloaded from VB1, VB: VB3, VT1, and VT2 during subsequent fi program site visit.
	SNP Groundwater Monitoring and Sampling	[June 13, 2024] None. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Attempt to remove the bailer from MW during a subsequent field program evisite visit. If the removal is successful, complete groundwater monitoring an sampling at MW5.
	Surface Water Monitoring and Sampling	[June 13, 2024] None. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Surface water sampling at SNP2016-11 SNP2016-11b2, SNP2016-11b3, and SNP 11b4 to be completed during subsequ field program event site visit.
amlaren (Zenith Island) Visual Assessment		[June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 12, 2024] None.	Scope complete.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommende Action
Kidney Pond	Visual Assessment	[June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016- 11d. [June 12, 2024] None.	Scope complete.
Тгеасу	Visual Assessment	[June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 12, 2024] None.	Scope complete.
West Bay	Visual Assessment	[June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 12, 2024] None.	Scope complete.
pling Completed:	•		
Burnt Island	[June 13, 2024] GLG-2 [June 12, 2024] None.	024-00001-009	
Camlaren (TSCA)	[June 13, 2024] None. [June 12, 2024] GLG-2	024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024-00001-004, GLG-	2024-00001-006
Camlaren (Zenith Island)	[June 13, 2024] GLG-2 [June 12, 2024] None.	024-00001-014	
Kidney Pond	[June 13, 2024] GLG-2 [June 12, 2024] None.	024-00001-015	
Treacy	[June 13, 2024] GLG-2 [June 12, 2024] None.	024-00001-016	
West Bay	[June 13, 2024] GLG-2 [June 12, 2024] None.	024-00001-017	
Quality Control		024-00001-020 (surface water BFD) 024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-2024-00001-020 (gr	oundwater BFD)
Samples Not Collected	[June 13, 2024] None.		

Daily Photo Record



Photo 1

Magda Celejewski preparing to collect insitu measurements of surface water quality parameters at SNP201611a (Burnt Island).

Photo 2

Magda Celejewski collecting in-situ measurements of surface water quality parameters at SNP201611e (Zenith Island).



hoto 3

Measuring small depressions in backfill material at KID_SO_07, using pencil for size reference.



Photo 4

Peter Crookedhand and Magda Celejewski, pictured walking toward SNP2016-11a at Burnt Island.

Gordon Lake Group Sites Daily Report			
Client:	PSPC/CIRNAC	Report Date:	June 14, 2024
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec
Stantec Project Number	123515016	Day Shift Hours	06:45-18:45
Weather:	17°C, Mainly Sunny	Report by:	Natalie Normandeau

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	None.
Ek'edia	1	1	
Stantec	2	0	

Personnel:

Name	Position
Natalie Normandeau	K'alo-Stantec Field Lead
Magda Celejewski	K'alo-Stantec Field Crew
Peter Crookedhand	Ek'edia Wildlife Monitor
Andrew Ridsdale	Acasta Pilot

Communications:

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on June 11, 2024. Acasta pilot followed call out procedures upon arrival to and departure from site.

Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:30 and arrived at Camlaren at 09:35.

Helicopter departed Camlaren at 12:55 and arrived at Burnt Island at 13:15.

Helicopter departed Burnt Island at 14:20 and arrived a Yellowknife Acasta at 14:55.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure. Completed tailgate safety meeting including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at Camlaren.

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
Observation: Hazard Identification	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

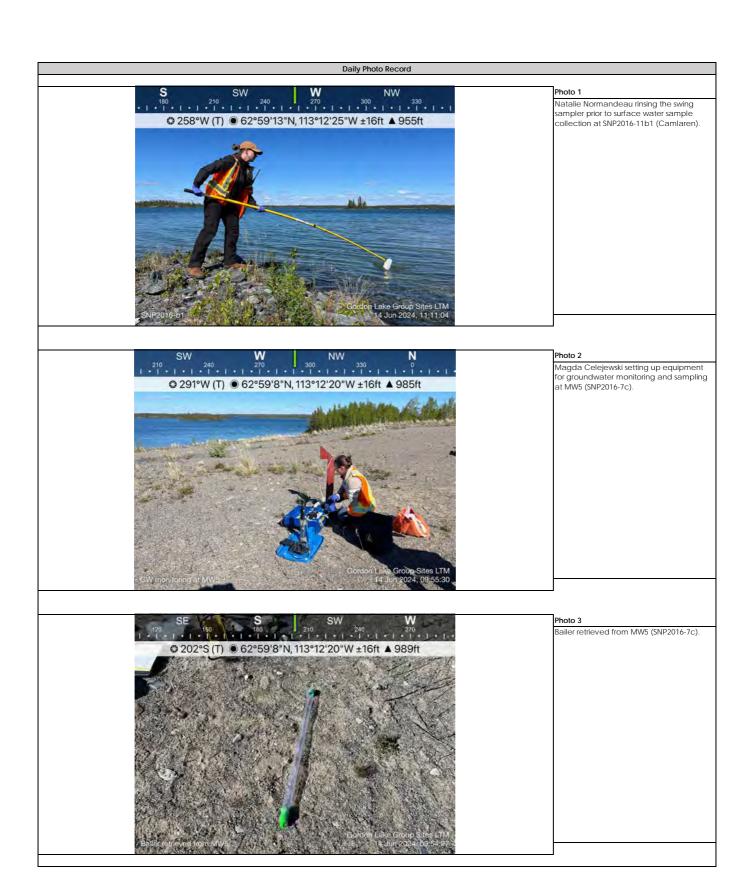
Summary of Site Activities

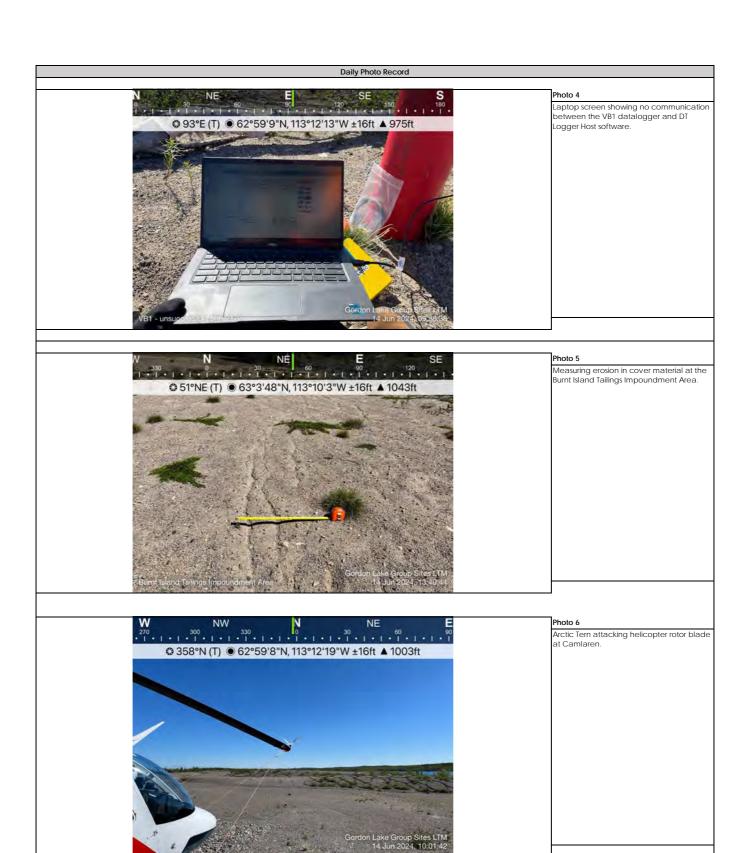
Completed Day 3 of 3 of the field program. Planned scope of work for the day included surface water monitoring and sampling at Camlaren, visual assessment of the TSCA, and TSCA

Site A	ctivities
	Compor

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Burnt Island	Visual Assessment	[June 14, 2024] Completed visual assessment of the Waste Rock Area, Tailings Impoundment Area, and Shaft. No new concerns observed. [June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 14, 2024] None. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [June 12, 2024] None.	Scope complete.
Camlaren (TSCA)	TSCA Visual Assessment and Instrumentation Monitoring	[June 14, 2024] Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be estbalished. Reviewed DTLogger PC Manual and determined that DT2055 and DT2040 Controller Driver Sets need to be installed on the Field Lead's laptop. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA embankments/berms. Several Arctic Tern were nesting on the TSCA surface; therefore, the TSCA surface was not visually assessed on foot. No new concerns observed. Completed visual assessment of CAM_SO_01, CAM_SO_03, CAM_SO_04, CAM_SO_05, CAM_SO_06, CAM_SO_07, CAM_SO_08, CAM_SO_09, CAM_SO_11, CAM_SO_14, CAM_SO_12, CAM_SO_18, and CAM_SO_19. No new concerns observed. [June 13, 2024] None. [June 12, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements.	Install Control Driver Sets on Field Lead's laptop and download data from VB1, VB2, VB3, VT1, and VT2 during subsequent field program event.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommender
Camlaren (TSCA) continued SNP Groundwater Monitoring and Sampling		[June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection; partial sample collected. [June 13, 2024] None. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Action Scope complete.
	Surface Water Monitoring and Sampling	[June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 13, 2024] None. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Scope complete.
Camlaren (Zenith Island)	Visual Assessment	[June 14, 2024] None. [June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 14, 2024] None. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 12, 2024] None.	Scope complete.
Kidney Pond	Visual Assessment	[June 14, 2024] None. [June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 14, 2024] None. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016- 11d. [June 12, 2024] None.	Scope complete.
Treacy	Visual Assessment	[June 14, 2024] None. [June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 14, 2024] None. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 12, 2024] None.	Scope complete.
West Bay	Visual Assessment	[June 14, 2024] None. [June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed. [June 12, 2024] None.	Scope complete.
	Surface Water Monitoring and Sampling	[June 14, 2024] None. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 12, 2024] None.	Scope complete.
mpling Completed:			
Burnt Island	[June 14, 2024] None. [June 13, 2024] GLG-2 [June 12, 2024] None.	2024-00001-009	
Camlaren (TSCA)	[June 13, 2024] None. [June 12, 2024] GLG-2	2024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024-00001-004, GLG-	
Camlaren (Zenith Island)	[June 14, 2024] None. [June 13, 2024] GLG-2024-00001-014 [June 12, 2024] None.		
Kidney Pond	[June 14, 2024] None. [June 13, 2024] GLG-2024-00001-015 [June 12, 2024] None.		
Treacy	[June 14, 2024] None. [June 13, 2024] GLG-2024-00001-016 [June 12, 2024] None.		
Maria Da	[June 14, 2024] None. [June 13, 2024] GLG-2	2024-00001-017	
West Bay	[June 12, 2024] None.		
West Bay Quality Control	[June 14, 2024] None. [June 13, 2024] GLG-2 [June 12, 2024] GLG-2	2024-00001-020 (surface water BFD) 2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-2024-00001-020 (gr	oundwater BFD)
	[June 14, 2024] None. [June 13, 2024] GLG-2 [June 12, 2024] GLG-2 [June 14, 2024] None. [June 13, 2024] None.	2024-00001-020 (surface water BFD) 2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-2024-00001-020 (gr	oundwater BFD)





Gordon Lake Group Sites Daily Report					
Client: PSPC/CIRNAC Report Date: July 10, 2024					
Project: Akaitcho Sites Long-Term Monitoring Co		Contractor:	K'alo-Stantec		
Stantec Project Number	123515016	Day Shift Hours	07:00-19:00		
Weather:	Sunny, breezy, 20°C	Report by:	Magda Celejewski		

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	None.
Ek'edia	1	1	
Stantec	2	0	

Personnel:

Name	Position	
Tarek Ghadieh	K'alo-Stantec Field Lead	
Magda Celejewski	K'alo-Stantec Field Crew	
Peter Crookedhand	Ek'edia Wildlife Monitor	
Luke Spence	Acasta Pilot	

Communications:

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on July 8, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site.

Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:30 and arrived at Camlaren at 09:20. Helicopter departed Camlaren at 15:35 and arrived at Yellowknife Acasta at 16:15

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure. Completed tailgate safety meeting including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

Summary of Site Activities

Completed Day 1 of 3 of the field program. Planned scope of work for the day included groundwater monitoring and sampling at Camlaren and TSCA instrumentation monitoring and data downloads. TSCA instrumentation data downloads were not completed.

ctivities				
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action	
Burnt Island Visual Assessment		[June 14, 2024] Completed visual assessment of the Waste Rock Area, Tailings Impoundment Area, and Shaft. No new concerns observed. [June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed.	Scope complete.	
	Surface Water Monitoring and Sampling	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016- 11a.	To be completed during subsequent field progam event site visit.	
Camlaren (TSCA)	TSCA Visual Assessment and Instrumentation Monitoring	[July 10, 2024] Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Datalogger battery issue suspected. [June 14, 2024] Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Reviewed DTLogger PC Manual and determined that DT2055 and DT2040 Controller Driver Sets need to be installed on the Field Lead's laptop. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA embankments/berms. Several Arctic Tern were nesting on the TSCA surface; therefore, the TSCA surface was not visually assessed on foot. No new concerns observed. Completed visual assessment of CAM_SO_01, CAM_SO_03, CAM_SO_04, CAM_SO_05, CAM_SO_06, CAM_SO_07, CAM_SO_08, CAM_SO_09, CAM_SO_11, CAM_SO_14, CAM_SO_12, CAM_SO_18, and CAM_SO_19. No new concerns observed. [June 12, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements.	Datalogger batteries to be ordered and replaced during subsequent field program event.	

Camilaren (ISCA) continued SNP Groundwater Monitoring and Sampling Sampling Sampling Sampling Sampling Surface Water Monitoring and Surfac	Site Activities				
Mill Control cases Mill Group Control Mill G	Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action	
Monitoring and Sampling 11.01, SW2016-110, 3.04 SW2016-100, to discharge/seepage was showned and SW2016-600, to SW2016-600, to SW2016-600, to SW2016-600, to Control of SW2016-600, to S	Camlaren (TSCA) continued	Monitoring and	7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d), MW2, and MW1. Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection; partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was	Groundwater sample to be collected from MW5 (SNP 2016-7c) during subsequent field program event site visit if sufficient	
Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surface Water Monitoring and Sampling Surfa		Monitoring and	11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8b;		
Monitoring and Sampling Visual Assessment Visual Assessment Visual Assessment Surface Water Monitoring and Sampling Treacy Visual Assessment Jame 13, 2024] Completed surface water monitoring and sampling at 59/2016 Treacy Visual Assessment Jame 13, 2024] Completed surface water monitoring and sampling at 59/2016 Surface Water Monitoring and sampling Visual Assessment Jame 13, 2024] Completed surface water monitoring and sampling at 59/2016 Surface Water Monitoring and Sampling West Bay Visual Assessment Jame 13, 2024] Completed vaual assessment of RELSO_01, RELSO_02, East thench Scope complete. **Surface Water Monitoring and Sampling Jame 13, 2024] Completed vaual assessment of RELSO_01, RELSO_02, and Open Scope complete. **Surface Water Monitoring and Sampling Jame 13, 2024] Completed vaual assessment of WES_ELD_0, WEST_SO_02, and Open Scope complete. **Surface Water Monitoring and Sampling and Sampling at 59/2016-117. To be completed during subsequent fie program event site visit. **Surface Water Monitoring and Sampling (GLG_02024-00001-002) **Surface Water Monitoring and Sampling at 59/2016-117. **June 13, 2024] CIG-2024-00001-002. **Surface Water Monitoring and Sampling at 59/2016-117. **June 13, 2024] CIG-2024-00001-003. **	Camlaren (Zenith Island)	Visual Assessment		Scope complete.	
Surface Water Monitoring and Sampling Treacy Vaual Assessment June 13, 2024] Completed surface water monitoring and sampling at \$M/2016 To be completed during subsequent fie program event site visit. Vaual Assessment June 13, 2024] Completed visual assessment of TRE, SO, 01, TRE, SO, 02, East Trench Scope complete. Surface Water Monitoring and Sampling West Bay Vaual Assessment June 13, 2024] Completed visual assessment of WES, TL, 01, WEST, SO, 02, and Open Scope complete. Surface Water Monitoring and Sampling at \$M/2016-11e. To be completed during subsequent fie program event site visit. Surface Water Monitoring and Sampling and Surface water monitoring and sampling at \$M/2016-11e. To be completed during subsequent fie program event site visit. Surface Water Monitoring and Sampling and Surface water monitoring and sampling at \$M/2016-11f. To be completed during subsequent fie program event site visit. Sampling Completed: Burnt Island June 13, 2024] GLC- 2024 00001-009 Camilaren (ISCA) July 10, 2024 [GLC- 2024 00001-00], GLC- 2024 00002-003, GLC- 2024 00002-004, GLG- 2024 000002-006, GLG- 2024 000002-013, June 12, 2024] GLC- 2024 00001-010, GLC- 2024 00001-010, GLC- 2024 00001-011, GLC- 2024 00001-013, June 12, 2024] GLC- 2024 00001-016, GLC- 2024 00001-010, GLC- 2024 00001-013, GLC- 2024 00001-014, GLC- 2024 00001-015 West Bay June 13, 2024] GLC- 2024 00001-016, GLC- 2024 00001-023, GLC- 2024 00001-023, GLC- 2024 00001-020, GLC- 202		Monitoring and	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c.	To be completed during subsequent field progam event site visit.	
Monitoring and Sampling 11d. program event site visit. program event site visit.	Kidney Pond	Visual Assessment		Scope complete.	
and West Trench. No new concerns observed. Surface Water Montroing and Sampling at SNP2016-11e. To be completed during subsequent fie program event site visit. West Bay Visual Assessment Usune 13, 2024] Completed visual assessment of WES_IL_01, WEST_SO_02, and Open Scope complete. Pit. No new concerns observed. Surface Water Montroing and Sampling at SNP2016-11f. To be completed during subsequent fie program event site visit. Sampling Completed: Burnt Nand June 13, 2024] GLG-2024-00001-009 Camilaren (ISCA) Duly 10, 2024] GLG-2024-00002-001, GLG-2024-00002-002, GLG-2024-00002-003, GLG-2024-00002-004, GLG-2024-00002-006, GLG-2024-00002-019, GLG-2024-00002-019, GLG-2024-00002-019, GLG-2024-00002-019, GLG-2024-00002-019, GLG-2024-00002-019, GLG-2024-00001-019, GLG-2024-00001-029, GLG-2024		Monitoring and		To be completed during subsequent field progam event site visit.	
Monitoring and Sampling Surface Water Dune 13, 2024 Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Scope complete.	Treacy	Visual Assessment		Scope complete.	
Surface Water Monitoring and Sampling Mune 13, 2024 Completed surface water monitoring and sampling at SNP2016-11f. To be completed during subsequent flee program event site visit.		Monitoring and	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e.	To be completed during subsequent field progam event site visit.	
Sampling Completed: Burnt Island	West Bay	Visual Assessment		Scope complete.	
Burnt Island [June 13, 2024] GLG-2024-00001-009		Monitoring and	[June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f.	To be completed during subsequent field progam event site visit.	
Burnt Island [June 13, 2024] GLG-2024-00001-009	Sampling Completed:				
2024-00002-011, GLG-2024-00002-012, GLG-2024-00002-013 [June 14, 2024] GLG-2024-00001-005 (parilal), GLG-2024-00001-010, GLG-2024-00001-011, GLG-2024-00001-012 [June 12, 2024] GLG-2024-00001-014 Kidney Pond [June 13, 2024] GLG-2024-00001-015 Treacy [June 13, 2024] GLG-2024-00001-016 West Bay [June 13, 2024] GLG-2024-00001-017 Quality Control [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-2024-00001-020 (groundwater BFD) Samples Not Collected [July 10, 2024] GLG-2024-00001-007, GLG-2024-00001-008 [June 12, 2024] GLG-2024-00001-007, GLG-2024-00001-008		[June 13, 2024] GLG-2	024-00001-009		
Kidney Pond June 13, 2024] GLG-2024-00001-015 Treacy	Camlaren (TSCA)	2024-00002-011, GLG-: [June 14, 2024] GLG-2	2024-00002-012, GLG-2024-00002-013, GLG-2024-00002-019 024-00001-005 (partial), GLG-2024-00001-010, GLG-2024-00001-011, GLG-2024-00001-0	12, GLG-2024-00001-013	
Treacy [June 13, 2024] GLG-2024-00001-016 West Bay [June 13, 2024] GLG-2024-00001-017 Quality Control [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-2024-00001-020 (groundwater BFD) Samples Not Collected [July 10, 2024] GLG-2024-00002-007, GLG-2024-00001-008 [June 12, 2024] GLG-2024-00001-007, GLG-2024-00001-008	Camlaren (Zenith Island)	[June 13, 2024] GLG-2	024-00001-014		
West Bay [June 13, 2024] GLG-2024-00001-017 Quality Control [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-2024-00001-020 (groundwater BFD) Samples Not Collected [July 10, 2024] GLG-2024-00002-007, GLG-2024-00002-008 [June 12, 2024] GLG-2024-00001-007, GLG-2024-00001-008	Kidney Pond	[June 13, 2024] GLG-2024-00001-015			
Quality Control [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-2024-00001-020 (groundwater BFD) Samples Not Collected [July 10, 2024] GLG-2024-00002-007, GLG-2024-00002-008 [June 12, 2024] GLG-2024-00001-007, GLG-2024-00001-008 Regulatory Concerns	Treacy	[June 13, 2024] GLG-2024-00001-016			
[June 12, 2024] GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank), GLG-2024-00001-020 (groundwater BFD) Samples Not Collected [July 10, 2024] GLG-2024-00002-007, GLG-2024-00002-008 [June 12, 2024] GLG-2024-00001-007, GLG-2024-00001-008	West Bay	[June 13, 2024] GLG-2024-00001-017			
[June 12 , 2024] GLG-2024-00001-007, GLG-2024-00001-008 Regulatory Concerns	Quality Control				
	Samples Not Collected				
	Pegulatory Concorns				

Daily Photo Record

Photo 1

Tarek Ghadieh collected VOC headspace measurements at MW6 (SNP2016-7d), facing east.



Repaired SNP station identification at MW6 (SNP 2016-7d), facing north-northeast.



Tarek Ghadieh completing groundwater monitoring and sampling at at MW3 (SNP2016-7b), facing east.



Gordon Lake Group Sites Daily Report					
Client: PSPC/CIRNAC Report Date: July 11, 2024					
Project: Akaitcho Sites Long-Term Monitoring Con		Contractor:	K'alo-Stantec		
Stantec Project Number	123515016	Day Shift Hours	07:00-19:00		
Weather:	Sunny, windy, 14°C	Report by:	Jolene Moyer		

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	None.
Ek'edia	1	1	
Stantec	2	0	

Personnel:

Name	Position	
Tarek Ghadieh	K'alo-Stantec Field Lead	
Jolene Moyer	K'alo-Stantec Field Crew	
Peter Crookedhand	Ek'edia Wildlife Monitor	
Luke Spence	Acasta Pilot	

Communications:

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on July 8, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site

Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:36 and arrived at Burnt Island at 09:27.

Helicopter departed Burnt Island at 10:19 and arrived at Camlaren at 10:26.

Helicopter departed Camlaren at 12:10 and arrived at Zenith Island at 12:15.

Helicopter departed Zenith Island at 12:45 and arrived at West Bay at 12:52. Helicopter departed West Bay at 13:19 and arrived at Kidney Pond at 13:25.

Helicopter departed West Bay at 13:19 and arrived at Namey Pond at 13:29.

Helicopter departed Kidney Pond at 13:56 and arrived at Treacy at 13:59.

Helicopter departed Treacy at 14:24 and arrived at Yellowknife Acasta at 14:55.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure.

Completed tailgate safety meeting including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at Burnt Island.

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
Observation: Hazard Identification	landing, a moose was observed at Burnt Island. The moose wandered away from the worksite area upon	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

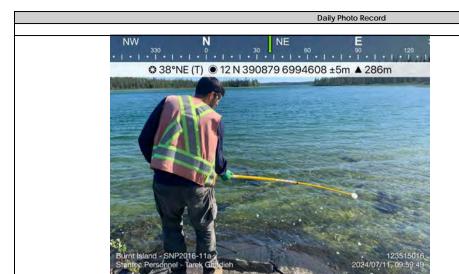
Summary of Site Activities:

Completed Day 2 of 3 of the field program. Planned scope of work for the day included surface water monitoring and sampling at Burnt Island, Kidney Pond, Treacy, West Bay, and Zenith Island; groundwater sampling at MW5 (SNP2016-7c) and TSCA instrumentation data downloads at Camlaren. Additional troubleshooting required for TSCA instrumentation.

Site Activities: Monitoring Type Component / Area Activity and/or Observation Scope of Work Remaining / Recommended Action Burnt Island June 14, 2024] Completed visual assessment of the Waste Rock Area, Tailings mpoundment Area, and Shaft. No new concerns observed. Visual Assessment Scope complete June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new oncerns observed. Surface Water [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. Scope complete. Monitoring and Sampling

e Activities:				
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action	
Camlaren (TSCA)	TSCA Visual Assessment and Instrumentation Monitoring	[July 11, 2024] Inspected instrumentation batteries and wired connections. Replacement date of September 4, 2020 observed on batteries. Battery in VT1 found to be disconnected from the terminal. Replaced battery in VT1 with supplmenetal battery taken to site; laptop recognized the connected device; however, the software interface could not establish a connection. [July 10, 2024] Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Datalogger battery issue suspected. [June 14, 2024] Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Reviewed DTLogger PC Manual and determined that DT2055 and DT2040 Controller Driver Sets need to be installed on the Filed Lead's laptop. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA embankments/berms. Several Arctic Tern were nesting on the TSCA surface: therefore, the TSCA surface was not visually assessed on foot. No new concerns observed. Completed visual assessment of CAM_SO_01, CAM_SO_03, CAM_SO_04, CAM_SO_05, CAM_SO_06, CAM_SO_07, CAM_SO_08, CAM_SO_09, CAM_SO_11, CAM_SO_14, CAM_SO_12, CAM_SO_12, CAM_SO_19. No new concerns observed. [June 12, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements.	Additional troubleshooting to be completed during subsequent field program event site visit. Batteries to be purchased and replaced during subsequent field program event.	
	SNP Groundwater Monitoring and Sampling	[July 11, 2024] Attempted to collect groundwater sample from MW5 (SNP2016-7c). Insufficient recharge was observed: therefore, no sample was collected. [July 10, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7c). Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection: partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Groundwater sample to be collected from MW5 (SNP 2016-7c) during subsequent field program event site visit if sufficient recharge is observed.	
	Surface Water Monitoring and Sampling	(July 10, 2024) Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Scope complete.	
Camlaren (Zenith Island)	Visual Assessment	[June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed.	Scope complete.	
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c.	Scope complete.	
Kidney Pond	Visual Assessment	[June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed.	Scope complete.	
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11d.	Scope Complete.	

Site Activities:				
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action	
Treacy	Visual Assessment	[June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed.	Scope complete.	
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016- 11e.	Scope complete.	
West Bay	Visual Assessment	[June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed.	Scope complete.	
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f.	Scope complete:	
Sampling Completed:	1			
Burnt Island	[July 11, 2024] GLG-2024-00002-009 [June 13, 2024] GLG-2024-00001-009			
Camlaren (TSCA)	[July 10, 2024] GLG-2024-00002-001, GLG-2024-00002-002, GLG-2024-00002-003, GLG-2024-00002-004, GLG-2024-00002-006, GLG-2024-00002-010, GLG-2024-00002-011, GLG-2024-00002-011, GLG-2024-00002-013, GLG-2024-00002-019 [June 14, 2024] GLG-2024-00001-005 (partial), GLG-2024-00001-010, GLG-2024-00001-011, GLG-2024-00001-012, GLG-2024-00001-013 [June 12, 2024] GLG-2024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024-00001-004, GLG-2024-00001-006			
Camlaren (Zenith Island)		[July 11, 2024] GLG-2024-00002-014 [June 13, 2024] GLG-2024-00001-014		
Kidney Pond	[July 11, 2024] GLG-20 [June 13, 2024] GLG-2			
Тгеасу	[July 11, 2024] GLG-20 [June 13, 2024] GLG-2			
West Bay	[July 11, 2024] GLG-2024-00002-017 [June 13, 2024] GLG-2024-00001-017			
Quality Control	[July 11, 2024] GLG-2024-00002-020 (surface water BFD), GLG-2024-00002-022 (Trip Blank), GLG-2024-00002-023 (Field Blank) [July 10, 2024] GLG-2024-00001-019 (groundwater BFD) [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-019 (groundwater BFD), GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank)			
Samples Not Collected	[July 10, 2024] GLG-2024-00002-007, GLG-2024-00002-008 [June 12 , 2024] GLG-2024-00001-007, GLG-2024-00001-008			
Regulatory Concerns				
None.				



Photo

Tarek Ghadieh collecting surface water sample at Burnt Island (SNP2016-11a).



hoto 2

VT1 at Camlaren opened for inspection and battery replacement. Battery found to not be plugged into the terminal.



Photo 3

Jolene Moyer labeling surface water sample bottles at West Bay (SNP2016-11f).

Daily Photo Record NW N NE 13°N (T) ● 12 N 388351 6986080 ±5m ▲ 303m

Photo 4

VB3 at Camlaren opened for inspection and battery check.



hoto 5

Jolene Moyer labeling surface water sample bottles at Kidney Pond (SNP2016-11d).



Photo 6

Jolene Moyer collecting surface water sample at Treacy (SNP2016-11e). Peter Crookedhand in background.

Gordon Lake Group Sites Daily Report						
Client:	PS	SPC/CIRNAC		Report Date:		July 16, 2024
Project:	Akaitcho Sites Long-Term Monitoring		Contractor:		K'alo-Stantec	
Stantec Project Number	123515016		Day Shift Hours		07:00-19:00	
Weather:	Sunny, 16 to 22°C		Report by:		Jolene Moyer	
Company		Total # of Workers		# of Aboriginal Workers		Note:

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	None.
Ek'edia	2	2	
K'alo-Stantec	4	0	

Personnel:

Name Position		
Tarek Ghadieh	K'alo-Stantec Field Lead (Crew 1)	
Jolene Moyer	K'alo-Stantec Field Crew Member (Crew 1)	
Setffen Karl	K'alo-Stantec Field Crew Member (Crew 2)	
Steve Bundrock	K'alo-Stantec Field Crew Member (Crew 2)	
Peter Crookedhand	Ek'edia Wildlife Monitor (Crew 1)	
Keith Sangris Ek'edia Wildlife Monitor (Crew 2)		
Luke Spence	Acasta Pilot	

Communications:

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on July 8, 2024.
Acasta pilot followed call out procedures upon arrival to and departure from site.
Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Helicopter departed Yellowknife Acasta at 08:22 with Crew 1 and arrived at Camlaren at 08:58.

Helicopter returned to Yellowknife Acasta without passengers

Helicopter departed Yellowknife Acasta at 10:00 with Cew 2 and arrived at Camlaren at 11:10.

Helicopter departed Camlaren at 11:36 with Crew 1 and arrived at Yellowknife Acasta at 12:14. Helicopter returned to Camlaren without passengers.

Helicopter departed Camlaren at approximately 13:30 with Crew 2 and arrived at Yellowknife Acasta at 14:20.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of nelicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure Crew 1 and Crew 2 completed tailgate safety meetings including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at Camlaren.

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
Observation: Hazard Identification	[July 11, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a moose was observed at Burnt Island. The moose wandered away from the worksite area upon detecting the helicopter and was not observed again throughout the day.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

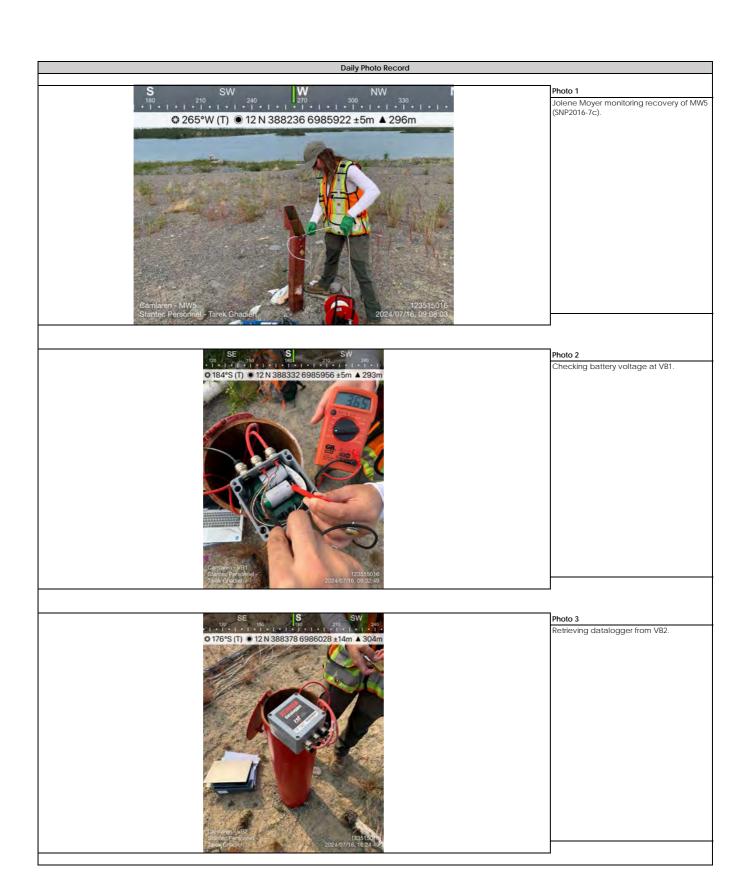
Summary of Site Activities:

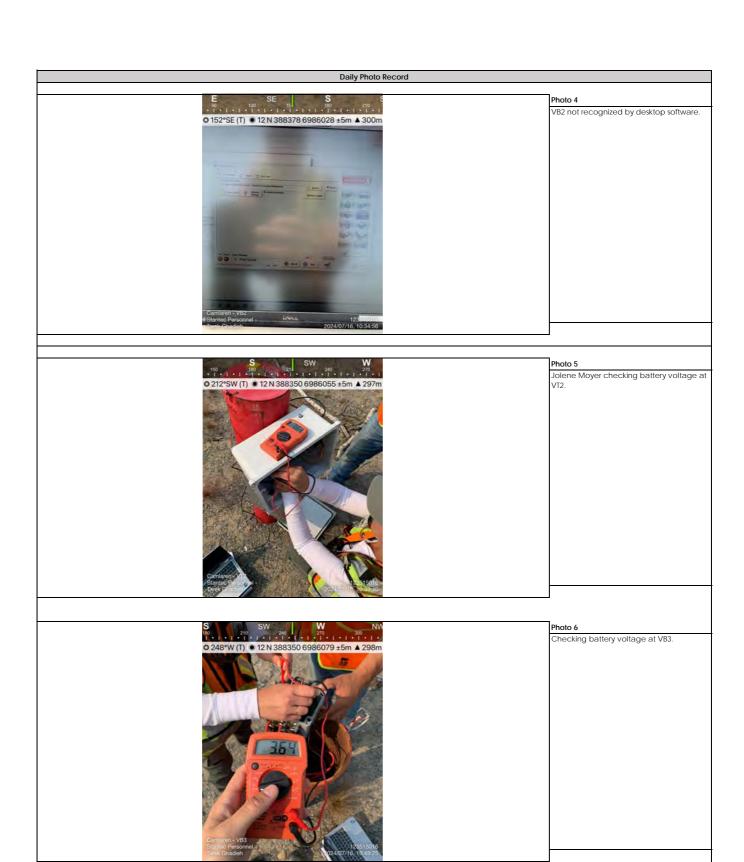
Completed Day 3 of 3 of the field program. Planned scope of work for the day included groundwater sampling at MW5 (SNP2016-7c), TSCA instrumentation data downloads at Camlaren, and DSI of the Camlaren TSCA.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Burnt Island	d Visual Assessment [June 14, 2024] Completed visual assessment of the Was Impoundment Area, and Shaft. No new concerns obser [June 13, 2024] Completed visual assessment of BUR_SO concerns observed.		Scope complete.
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11a.	Scope complete.

Activities: Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommende Action
Camlaren (TSCA)	TSCA Dam Safety Inspection	[July 16, 2024] Completed Dam Safety Inspection. One surface depression/sinkhole was observed near the north end of the TSCA. This sinkhole had not been identified in the April 5, 2024 AECOM Geotechnical Inspection Report. It was, however, identified in Stantec's previous reports, including our YEAR 2 inspection report. Depression/sinkhole does not appear to have progressed further. Partially healed cracks identified in the AECOM 2024 report appeared to have fully healed as the cracks were not visible now. No other significant concerns were identified	Scope complete.
	TSCA Visual Assessment and Instrumentation Monitoring	[July 16, 2024] Veriffied battery voltage in VT1, VT2, VB1, VB2, and VB3. Communicated with in-office K'alo-Stantec automation specialist over satellite phone to troubleshoot instrumentation. Issues persisted: could not establish communication between dataloggers and desktop software interface. [July 11, 2024] Inspected instrumentation batteries and wired connections. Replacement date of September 4, 2020 observed on batteries. Battery in VT1 found to be disconnected from the terminal. Replaced battery in VT1 with supplmenetal battery taken to site; laptop recognized the connected device; however, the software interface could not establish a connection. [July 10, 2024] Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Datalogger battery issue suspected. [June 14, 2024] Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Reviewed DTLogger PC Manual and determined that DT2055 and DT2040 Controller Driver Sets need to be installed on the Field Lead's laptop. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA embankments/berms. Several Arctic Tern were nesting on the TSCA surface; therefore, the TSCA surface was not visually assessed on foot. No new concerns observed. Completed visual assessment of CAM_SO_01, CAM_SO_03, CAM_SO_04, CAM_SO_05, CAM_SO_06, CAM_SO_07, CAM_SO_08, CAM_SO_09, CAM_SO_11, CAM_SO_11, CAM_SO_12, CAM_SO_12, CAM_SO_13, No new concerns observed. Liune 12, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements.	Additional troubleshooting to be completed during subsequent field program event.
	SNP Groundwater Monitoring and Sampling	[July 16, 2024] Collected partial sample from MW5 (SNP2016-7c). Insufficient groundwater recovery or full sample collection. [July 11, 2024] Attempted to collect groundwater sample from MW5 (SNP2016-7c). Insufficient recharge was observed; therefore, no sample was collected. [July 10, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d), MW2, and MW1. Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection; partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Scope complete.
	Surface Water Monitoring and Sampling	[July 10, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Scope complete.
Camlaren (Zenith Island)	Visual Assessment	[June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c.	Scope complete.

		<u> </u>			
Kidney Pond	Visual Assessment	(June 13, 2024) Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed.	Scope complete.		
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11d.	Scope Complete.		
Site Activities:					
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action		
Treacy	Visual Assessment	[June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed.	Scope complete.		
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e.	Scope complete.		
West Bay	Visual Assessment	[June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed.	Scope complete.		
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f.	Scope complete.		
Sampling Completed:					
	F1 1 44 00041 010 00	04.00000.000			
Burnt Island	[July 11, 2024] GLG-2024-00002-009 [June 13, 2024] GLG-2024-00001-009				
Camlaren (TSCA)	[July 16, 2024] GLG-2024-00002-005 (partial sample) [July 10, 2024] GLG-2024-00002-001, GLG-2024-00002-002, GLG-2024-00002-003, GLG-2024-00002-004, GLG-2024-00002-006, GLG-2024-00002-010, GLG-2024-00002-011, GLG-2024-00002-012, GLG-2024-00002-013, GLG-2024-00002-019 [June 14, 2024] GLG-2024-00001-005 (partial), GLG-2024-00001-010, GLG-2024-00001-011, GLG-2024-00001-012, GLG-2024-00001-013 [June 12, 2024] GLG-2024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024-00001-004, GLG-2024-00001-006				
Camlaren (Zenith Island)	[July 11, 2024] GLG-2024-00002-014 [June 13, 2024] GLG-2024-00001-014				
Kidney Pond	[July 11, 2024] GLG-2024-00002-015 [June 13, 2024] GLG-2024-00001-015				
Treacy	[July 11, 2024] GLG-2024-00002-016 [June 13, 2024] GLG-2024-00001-016				
West Bay	[July 11, 2024] GLG-2024-00002-017 [June 13, 2024] GLG-2024-00001-017				
Quality Control	[July 11, 2024] GLG-2024-00002-020 (surface water BFD), GLG-2024-00002-022 (Trip Blank), GLG-2024-00002-023 (Field Blank) [July 10, 2024] GLG-2024-00001-019 (groundwater BFD) [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-019 (groundwater BFD), GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank)				
Samples Not Collected	[July 10, 2024] GLG-2024-00002-007, GLG-2024-00002-008 [June 12 , 2024] GLG-2024-00001-007, GLG-2024-00001-008				
Regulatory Concerns					
None.					





Gordon Lake Group Sites Daily Report					
Client:	PSPC/CIRNAC	Report Date:	July 20, 2024		
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec		
Stantec Project Number	123515016	Day Shift Hours	08:00-18:00		
Weather:	Cloudy, 18 to 22°C	Report by:	Tarek Ghadieh		

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	Darryl Bohnet with the North Slave Métis
Ek'edia	1	l l	Alliance accompanied K'alo-Stantec as
K'alo-Stantec	2	I ()	part of the Job Shadow Training Program (Bullmoose-Ruth (BMR1))
North Slave Métis Alliance	1	1	(Bailifioose-Ratif [Bivik])

Personnel: Name Position Tarek Ghadieh K'alo-Stantec Field Lead Jolene Moyer K'alo-Stantec Field Crew Membe Darryl Bohnet North Slave Métis Alliance Job Shadow Alfred Liske Ek'edia Wildlife Monitor Acasta Pilot

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on July 8, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site

Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:29 with half of field crew members and arrived at Bullmoose Airstrip (BMR) at 09:10.

Helicopter returned to Yellowknife Acasta without passengers.

Helicopter departed Yellowknife Acasta at 10:09 with remaining field crew members and arrived at Bullmoose Airstrip (BMR) at 10:50. Helicopter departed Bullmoose Airstrip (BMR) at 12:37 and arrived at Bullmoose Wetland (BMR) at 12:42. Helicopter departed Bullmoose Wetland (BMR) at 13:06 and arrived at Ruth Mine (BMR) at 13:18.

Helicopter departed Ruth Mine (BMR) at 13:40 and arrived at Camlaren at 14:07.

Helicopter departed Camlaren without passengers to Dome Lake to refuel and returned to Camlaren (Gordon Lake).

Helicopter departed Camlaren at 15:30 and arrived at Yellowknife Acasta at 16:00.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure. Completed tailgate safety meetings including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at Bullmoose Airstrip (BMR).

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
Observation: Hazard Identification	[July 11, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a moose was observed at Burnt Island. The moose wandered away from the worksite area upon detecting the helicopter and was not observed again throughout the day.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

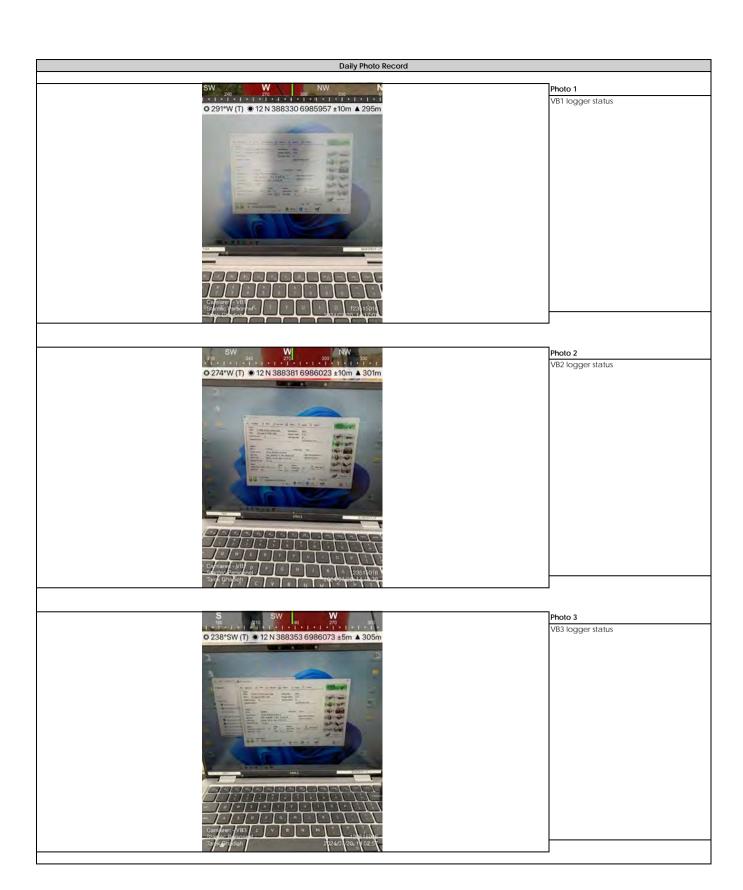
Summary of Site Activities:

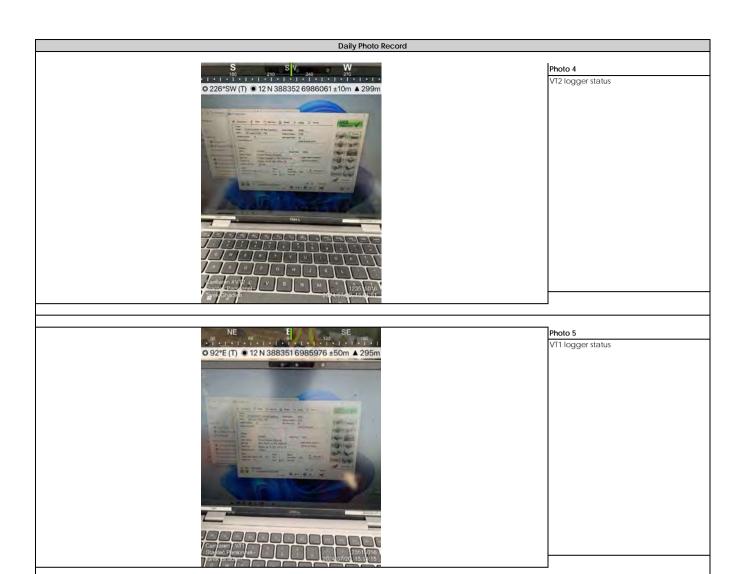
Completed an opportunitic site visit at Camlaren on day 7 of 8 of the BMR field program event. Planned scope of work included TSCA instrumentation data downloads at Camlaren.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recomme Action
Burnt Island	Visual Assessment	[June 14, 2024] Completed visual assessment of the Waste Rock Area, Tailings Impoundment Area, and Shaft. No new concerns observed. [June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11a.	Scope complete.

Site Activities:			
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Camlaren (TSCA)	TSCA Dam Safety Inspection	[July 16, 2024] Completed Dam Safety Inspection. One surface depression/sinkhole was observed near the north end of the TSCA. This sinkhole had not been identified in the April 5, 2024 AECOM Geotechnical Inspection Report. It was, however, identified in Stantec's previous reports, including our YEAR 2 inspection report. Depression/sinkhole does not appear to have progressed further. Partially healed cracks identified in the AECOM 2024 report appeared to have fully healed as the cracks were not visible now. No other significant concerns were identified.	Scope complete.
	TSCA Visual Assessment and Instrumentation Monitoring	[July 20, 2024] Successfully connected to and downloaded data from VT1, VT2, VB1, VB2, and VB3. Datalogger battery life observed to be at -90%Internal clocks observed to be 2 to 4 hours behind. Documented damage to instrumentation; VT1 was observed to have been damaged by wildlife, consisten with historical observations. VT1 datalogger status indicated 'Logging' at 12-hour intervals; however, last data were recorded in September 2022. July 16, 2024] Veriffied battery voltage in VT1, VT2, VB1, VB2, and VB3. Communicated with in-office K'alo-Stantec automation specialist over satellite phone to troubleshoot instrumentation. Issues persisted; could not establish communication between dataloggers and desktop software interface. July 11, 2024] Inspected instrumentation batteries and wired connections. Replacement date of September 4, 2020 observed on batteries. Battery in VT1 found to be disconnected from the terminal. Replaced battery in VT1 with supplemental battery taken to site; laptop recognized the connected device; nowever, the software interface could not establish a connection. July 10, 2024] Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Datalogger battery issue suspected. June 14, 2024] Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Patalogger PC Manual and determined that DT2055 and DT2040 Controller Driver Sets need to be installed on the Field Lead's laptop. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA and on-foot visual assessment of the TSCA and on-foot visual assessment of CAM_SO_01, CAM_SO_09, CAM_SO_04, CAM_SO_06, CAM_SO_06, CAM_SO_07, CAM_SO_09, CAM_SO_09, CAM_SO_04, CAM_SO_09, CAM_SO_09, CAM_SO_09, CAM_SO_09, CAM_SO_09, CAM_SO_09, CAM_SO_09, CAM_SO_09, CAM_SO_09,	Automation specialist to inspect VT1 during August field program event.
	SNP Groundwater Monitoring and Sampling	[July 16, 2024] Collected partial sample from MW5 (SNP2016-7c). Insufficient groundwater recovery or full sample collection. [July 11, 2024] Attempted to collect groundwater sample from MW5 (SNP2016-7c). Insufficient recharge was observed; therefore, no sample was collected. [July 10, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7c). Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection: partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7a). A blockage was observed at 0.785 mBiOP in MW5 and was determined to be a bailer and twine.	Scope complete.

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Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action			
Camlaren TSCA	Surface Water Monitoring and Sampling	[July 10, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Scope complete.			
Camlaren (Zenith Island)	Visual Assessment	[June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed.	Scope complete.			
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c.	Scope complete.			
Kidney Pond	Visual Assessment	[June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed.	Scope complete.			
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11d.	Scope Complete.			
te Activities:						
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action			
Treacy	Visual Assessment	[June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed.	Scope complete.			
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e.	Scope complete.			
West Bay	Visual Assessment	[June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed.	Scope complete.			
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f.	Scope complete.			
ampling Completed:						
Burnt Island	[July 11, 2024] GLG-20 [June 13, 2024] GLG-2					
Camlaren (TSCA)	[July 10, 2024] GLG-20 2024-00002-011, GLG- [June 14, 2024] GLG-2	024-00002-005 (partial) 024-00002-001, GLG-2024-00002-002, GLG-2024-00002-003, GLG-2024-00002-004, GLG- 2024-00002-012, GLG-2024-00002-013, GLG-2024-00002-019 0024-00001-005 (partial), GLG-2024-00001-010, GLG-2024-00001-011, GLG-2024-00001- 0024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024-00001-004, GLG	012, GLG-2024-00001-013			
Camlaren (Zenith Island)	[July 11, 2024] GLG-20 [June 13, 2024] GLG-2					
Kidney Pond	[July 11, 2024] GLG-2024-00002-015 [June 13, 2024] GLG-2024-00001-015					
Treacy	[July 11, 2024] GLG-2024-00002-016 [June 13, 2024] GLG-2024-00001-016					
West Bay	[July 11, 2024] GLG-2024-00002-017 [June 13, 2024] GLG-2024-00001-017					
Quality Control	[July 11, 2024] GLG-2024-00002-020 (surface water BFD), GLG-2024-00002-022 (Trip Blank), GLG-2024-00002-023 (Field Blank) [July 10, 2024] GLG-2024-00001-019 (groundwater BFD) [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-019 (groundwater BFD), GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank)					
Samples Not Collected		024-00002-007, GLG-2024-00002-008 2024-00001-007, GLG-2024-00001-008				
egulatory Concerns						





Gordon Lake Group Sites Daily Report					
Client: PSPC/CIRNAC Report Date: August 20, 2024					
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec		
Stantec Project Number 123515016 Day Shift		Day Shift Hours	08:00-18:00		
Weather:	Cloudy, 18 to 22°C	Report by:	Magda Celejewski		

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	" or riboriginal frontess	Darryl Bohnet with the North Slave Métis
Ek'edia	1		Alliance accompanied K'alo-Stantec as
K'alo-Stantec	2	0	part of the Job Shadow Training Program
North Slave Métis Alliance	1	1	

ersonner:		
Name	Position	
Magda Celejewski	K'alo-Stantec Field Lead	
Tarek Ghadieh	K'alo-Stantec Field Crew Member	
Darryl Bohnet	North Slave Métis Alliance Job Shadow	
Keith Sangris	Ek'edia Wildlife Monitor	
Luke Spence	Acasta Pilot	

Communications:

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on August 15, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site

Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:28 with first half of field crew and arrived at Camlaren at 09:15.

Helicopter returned to Yellowknife Acasta without passengers.

Helicopter departed Yellowknife Acasta at 10:05 with second half of field crew and arrived at Camlaren at 10:45.

Helicopter departed Camlaren at 14:33 with entire field crew and arrived at Yellowknife Acasta at 15:15.

Helicopter returned to Camlaren without passengers to retrieve equipment and returned to Yellowknife Acasta at 16:55.

Helicopter was too heavy to transport entire field crew and equipment to and from site. Two trips were made to transport field crew from Yellowknife Acasta to Camlaren.

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure.

Completed tailgate safety meetings including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
Observation: Hazard Identification		Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

Summary of Site Activities:

Completed groundwater sampling, surface water sampling, and data downloads at Camlaren.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Burnt Island	Visual Assessment	[June 14, 2024] Completed visual assessment of the Waste Rock Area, Tailings Impoundment Area, and Shaft. No new concerns observed. [June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed.	None.
	Surface Water Monitoring and Sampling		To be completed during subsequent field program event site visit.

ite Activities: Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended	
Camiaren (TSCA)	TSCA Dam Safety Inspection	[July 16, 2024] Completed Dam Safety Inspection. One surface depression/sinkhole was observed near the north end of the TSCA. This sinkhole had not been identified in the April 5, 2024 AECOM Geotechnical Inspection Report. It was, however, identified in Stantec's previous reports, including our YEAR 2 inspection report. Depression/sinkhole does not appear to have progressed further. Partially healed cracks identified in the AECOM 2024 report appeared to have fully healed as the cracks were not visible now. No other significant concerns were identified.	Action None.	
	TSCA Visual Assessment and Instrumentation Monitoring	[August 20, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections and data downloads of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Confirmed VT1 is recording data. A thermistor bead from VT1 at approximately 298.1 m AMSL appears to not be functioning. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA and the TSCA and on-foot visual assessment of the TSCA and vB3. Datalogger battery olidific, consisten with historical observed to be 2 to 4 hours behind. Documented damage to instrumentation: VT1 was observed to have been damaged by wildlific, consisten with historical observations. VT1 datalogger status indicated 'Logging' at 12-hour intervals; nowever, last data were recorded in September 2022. [July 16, 2024] Verified battery voltage in VT1, VT2, VB1, VB2, and VB3. Communicated with in-office K'alo-Stantec automation specialist over satellite phone to troubleshoot instrumentation. Issues persisted: could not establish communication between dataloggers and desktop software interface. [July 11, 2024] Inspected instrumentation batteries and wired connections. Replacement date of September 4, 2020 observed on batteries. Battery in VT1 found to be disconnected from the terminal. Replaced battery in VT1 with supplmenetal battery taken to site: laptop recognized the connected device; nowever, the software interface could not establish a connection. [July 10, 2024] Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Attempted to down	Scope complete.	
	SNP Groundwater Monitoring and Sampling	[August 20, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for full sample collection; a partial sample was collected (total and dissolved metals only). [July 16, 2024] Collected partial sample from MW5 (SNP2016-7c). Insufficient groundwater recovery or full sample collection. [July 11, 2024] Attempted to collect groundwater sample from MW5 (SNP2016-7c). Insufficient recharge was observed: therefore, no sample was collected. [July 10, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d), MW2, and MW1. Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection: partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Scope complete.	

Site Activities:						
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action			
Camlaren TSCA	Surface Water Monitoring and Sampling	[August 20, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [July 10, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Scope complete:			
Camlaren (Zenith Island)	Visual Assessment	[June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed.	None.			
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c.	To be completed during subsequent field program event site visit.			
Kidney Pond	Visual Assessment	[June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed.	None.			
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11d.	To be completed during subsequent field program event site visit.			
Site Activities: Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended			
·		·	Action			
Treacy	Visual Assessment	[June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed.	None.			
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e.	To be completed during subsequent field program event site visit.			
West Bay	Visual Assessment	[June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed.	None.			
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f.	To be completed during subsequent field program event site visit.			
Sampling Completed:						
Burnt Island	[July 11, 2024] GLG-20 [June 13, 2024] GLG-2					
Camlaren (TSCA)	[June 13, 2024] GLG-2024-00001-009 [August 20, 2024] GLG-2024-00003-001, GLG-2024-00003-002, GLG-2024-00003-003, GLG-2024-00003-004, GLG-2024-00003-006, GLG-2024-00003-010, GLG-2024-00003-011, GLG-2024-00003-012, GLG-2024-00003-013, GLG-2024-00003-005 (partial) [July 16, 2024] GLG-2024-00002-005 (partial) [July 16, 2024] GLG-2024-00002-005 (partial) [July 10, 2024] GLG-2024-00002-001, GLG-2024-00002-002, GLG-2024-00002-003, GLG-2024-00002-004, GLG-2024-00002-006, GLG-2024-00002-010, GLG-2024-00002-011, GLG-2024-00002-011, GLG-2024-00002-013, GLG-2024-00002-019 [June 14, 2024] GLG-2024-00001-005 (partial), GLG-2024-00001-010, GLG-2024-00001-011, GLG-2024-00001-012, GLG-2024-00001-013 [June 12, 2024] GLG-2024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024-00001-014, GLG-2024-00001-016					
Camlaren (Zenith Island)		[July 11, 2024] GLG-2024-00002-014 [June 13, 2024] GLG-2024-00001-014				
Kidney Pond	[July 11, 2024] GLG-2024-00002-015 [June 13, 2024] GLG-2024-00001-015					
Treacy	[July 11, 2024] GLG-2024-00002-016 [June 13, 2024] GLG-2024-00001-016					
West Bay	[July 11, 2024] GLG-2024-00002-017 [June 13, 2024] GLG-2024-00001-017					
Quality Control	[August 20, 2024] GLG-2024-00003-019 (groundwater BFD) [July 11, 2024] GLG-2024-00002-020 (surface water BFD), GLG-2024-00002-022 (Trip Blank), GLG-2024-00002-023 (Field Blank) [July 10, 2024] GLG-2024-00001-019 (groundwater BFD) [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-019 (groundwater BFD), GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank)					
Samples Not Collected	[July 10, 2024] GLG-20	5-2024-00003-007, GLG-2024-00003-008 124-00002-007, GLG-2024-00002-008 2024-00001-007, GLG-2024-00001-008				
Regulatory Concerns						
None.						

Daily Photo Record



Tarek Ghadieh and Darryl Bohnet completing groundwater monitoring and sampling at MW3 (SNP2016-7a), facing east.



Photo 2
Tarek Ghadieh completing groundwater monitoring and sampling at MW2, facing south-southeast.

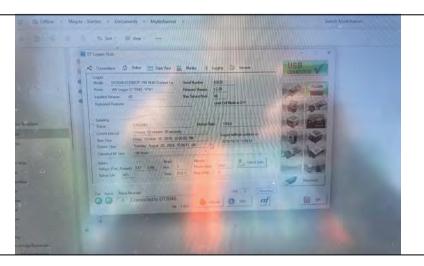


Photo 3
Thermistor VT1 logging status.

Daily Photo Record Photo 4 Evidence of animal burrowing on TSCA surface.

Photo 5 Discharge/seepage sampling station SNP 2016-8b observed to be dry, facing south.

Gordon Lake Group Sites Daily Report					
Client: PSPC/CIRNAC Report Date: August 21, 2024					
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec		
Stantec Project Number	123515016	Day Shift Hours	08:00-18:00		
Weather:	Cloudy, 18 to 22°C	Report by:	Magda Celejewski		

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	Darryl Bohnet with the North Slave Métis
Ek'edia	1		Alliance accompanied K'alo-Stantec as
K'alo-Stantec	2	0	part of the Job Shadow Training Program
North Slave Métis Alliance	1	1	

Personnel: Name Position Magda Celejewski K'alo-Stantec Field Lead Tarek Ghadieh Darryl Bohnet North Slave Métis Alliance Job Shadow Ek'edia Wildlife Monitor Norman Betsina Acasta Pilot

440 Squadron and applicable Yellowknife airline operators were notified of the field schedule on August 15, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site.
Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan (Risk Management Strategy [RMS] 1).

Logistics:

Helicopter did not depart Yellowknife Acasta due to weather conditions.

Health, Safety, Security, and Environment:

Departure from Acasta was initially delayed due to wildfire smoke and weather conditions, including low clouds and high wind gusts. Acasta advised they could not safely land at the project sites with four field crew members and equipment; therefore, one K'alo-Stantec crew member behind (Tarek Ghadieh) will stay behind in order to complete the scope of work. Acasta confirmed at mid-day that they could not safely fly to the project sites due to weather conditions. Acasta confirmed that forecast looks improved for flight to site on Thursday August 22nd.

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
		Continue to monitoring wildfire smoke forecast and observed conditions; adjust work as necessary.
Observation: Hazard Identification	[July 11, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a moose was observed at Burnt Island. The moose wandered away from the worksite area upon detecting the helicopter and was not observed again throughout the day.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
identification	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

Summary of Site Activities:

Day 2 of 3 of the field program event was not completed.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Burnt Island	Visual Assessment	[June 14, 2024] Completed visual assessment of the Waste Rock Area, Tailings Impoundment Area, and Shaft. No new concerns observed. [June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed.	To be completed during subsequent field program event.
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11a.	To be completed during subsequent field program event site visit.
Camlaren (TSCA)	TSCA Dam Safety Inspection	[July 16, 2024] Completed Dam Safety Inspection. One surface depression/sinkhole was observed near the north end of the TSCA. This sinkhole had not been identified in the April 5, 2024 AECOM Geotechnical Inspection Report. It was, however, identified in Stantec's previous reports, including our YEAR 2 inspection report. Depression/sinkhole does not appear to have progressed further. Partially healed cracks identified in the AECOM 2024 report appeared to have fully healed as the cracks were not visible now. No other significant concerns were identified.	Scope complete.

Site Activities:			
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Camlaren (ISCA)	TSCA Visual Assessment and Instrumentation Monitoring	[August 20, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections and data downloads of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Completed aerial visual assessment of the ISCA and on-foot visual assessment of the TSCA embankments/berms. [July 20, 2024] Successfully connected to and downloaded data from VT1, VT2, VB1, VB2, and VB3. Datalogger battery life observed to be at -90%internal clocks observed to be 2 to 4 hours behind. Documented damage to instrumentation; VT1 was observed to have been damaged by wildlife, consisten with historical observations. VT1 datalogger status indicated 'Logging' at 12-hour intervals; however, last data were recorded in September 2022. [July 16, 2024] Veriffied battery voltage in VT1, VT2, VB1, VB2, and VB3. Communicated with in-office K'alo-Stantec automation specialist over satellite phone to troubleshoot instrumentation. Issues persisted: could not establish communication between dataloggers and desktop software interface. [July 11, 2024] Inspected instrumentation batteries and wired connections. Replacement date of September 4, 2020 observed on batteries. Battery in VT1 found to be disconnected from the terminal. Replaced battery in VT1 with supplmental battery taken to site: laptop recognized the connected device; however, the software interface could not establish a connection. [July 10, 2024] Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Patiently because the sort of the TSCA and on-foot visual assessment of the TSCA embankments/berms. Several Arctic Term were nesting on the TSCA surface; therefore, the TSCA surface was not visually assessed on foot. No new concerns observed. Completed visual assessment of CAM_SO_01, CAM_SO_03, CAM_SO_09, CAM_SO_11, CAM_SO_12, CAM_SO_12, CAM_SO_13, CAM_SO_19. No new concerns observed.	Action Scope complete.
	SNP Groundwater Monitoring and Sampling	[August 20, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7c). Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for sample collection, total and dissolved metals collected. [July 16, 2024] Collected partial sample from MW5 (SNP2016-7c). Insufficient groundwater recovery or full sample collection. [July 11, 2024] Attempted to collect groundwater sample from MW5 (SNP2016-7c). Insufficient recharge was observed: therefore, no sample was collected. [July 10, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d), MW2, and MW1. Completed groundwater monitoring at MW3 (SNP 2016-7c). Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection: partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Scope complete.
	Surface Water Monitoring and Sampling	[August 20, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [July 10, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Scope complete.

Site Activities:	1		1		
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommender Action		
Camlaren (Zenith Island)	Visual Assessment	[June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed.	To be completed during subsequent field program event.		
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c.	To be completed during subsequent field program event site visit.		
Kidney Pond	Visual Assessment	[June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed.	To be completed during subsequent field program event.		
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11d.	To be completed during subsequent field program event site visit.		
Site Activities:					
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action		
Treacy	Visual Assessment	[June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed.	To be completed during subsequent field program event.		
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e.	To be completed during subsequent field program event site visit.		
West Bay	Visual Assessment	[June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed.	To be completed during subsequent field program event.		
	Surface Water Monitoring and Sampling	[July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f.	To be completed during subsequent field program event site visit.		
Sampling Completed:					
Burnt Island	[July 11, 2024] GLG-20	024_00002_009			
Sam island	[June 13, 2024] GLG-2				
Camlaren (TSCA)	August 20, 2024 GLG-2024-00003-001, GLG-2024-00003-002, GLG-2024-00003-003, GLG-2024-00003-004, GLG-2024-00003-006, GLG-2024-00003-010, GLG-2024-00003-011, GLG-2024-00003-012, GLG-2024-00003-013, GLG-2024-00003-005 (partial) July 16, 2024 GLG-2024-00002-005 (partial) July 10, 2024 GLG-2024-00002-005 (partial) July 10, 2024 GLG-2024-00002-005 (partial) July 10, 2024 GLG-2024-00002-011, GLG-2024-00002-012, GLG-2024-00002-013, GLG-2024-00002-019 June 14, 2024 GLG-2024-00001-015 (partial) GLG-2024-00001-015 (partial) June 14, 2024 GLG-2024-00001-015 (partial) GLG-2024-00001-015 (partial) June 12, 2024 GLG-2024-00001-015 (partial) Ju				
Camlaren (Zenith Island)	[July 11, 2024] GLG-20 [June 13, 2024] GLG-2				
Kidney Pond	[July 11, 2024] GLG-20 [June 13, 2024] GLG-2				
Treacy	[July 11, 2024] GLG-20 [June 13, 2024] GLG-2				
West Bay	[July 11, 2024] GLG-2024-00002-017 [June 13, 2024] GLG-2024-00001-017				
Quality Control	[August 20, 2024] GLG-2024-00001-019 (groundwater BFD) [July 11, 2024] GLG-2024-00002-020 (surface water BFD), GLG-2024-00002-022 (Trip Blank), GLG-2024-00002-023 (Field Blank) [July 10, 2024] GLG-2024-00001-019 (groundwater BFD) [June 13, 2024] GLG-2024-00001-020 (surface water BFD) [June 12, 2024] GLG-2024-00001-019 (groundwater BFD), GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank)				
Samples Not Collected	[August 20, 2024] GLG-2024-00003-007, GLG-2024-00003-008 [July 10, 2024] GLG-2024-00002-007, GLG-2024-00002-008 [June 12 , 2024] GLG-2024-00001-007, GLG-2024-00001-008				
Regulatory Concerns None.					

Gordon Lake Group Sites Daily Report					
Client: PSPC/CIRNAC Report Date: August 22, 2024					
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec		
Stantec Project Number	123515016	Day Shift Hours	08:00-18:00		
Weather:	Partly Cloudy, 11 to 16°C	Report by:	Magda Celejewski		

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1		Darryl Bohnet with the North Slave Métis
Ek'edia	1		Alliance accompanied K'alo-Stantec as
K'alo-Stantec	1	0	part of the Job Shadow Training Program.
North Slave Métis Alliance	1	1	

Personnel:

Name	Position	
Tarek Ghadieh	K'alo-Stantec Field Lead	
Darryl Bohnet	North Slave Métis Alliance Job Shadow	
Peter Crookedhand	Ek'edia Wildlife Monitor	
Luke Spence	Acasta Pilot	

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on August 15, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site.
Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:38 and arrived at Kidney Pond at 09:14.

Helicopter departed Kidney Pond at 09:57 and arrived at Treacy at 10:00.

Helicopter departed Treacy at 10:27 and arrived at West Bay at 10:33.
Helicopter departed West Bay at 10:56 and arrived at Zenith Island at 11:02.

Helicopter departed Zenith Island at 11:32 and arrived at Burnt Island at 11:38.

Helicopter departed Burnt Island at 12:28 and arrived at Dome Lake to refuel at 13:02.

Helicopter departed Dome Lake at 13:02 and arrived at Yellowknife Acasta at 13:33.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure.

Completed tailgate safety meeting including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at Kidney Pond.

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
	[August 21, 2024] Peter Crookedhand indicated he could not work outside due to wildfire smoke. Norman Betsina of Ek'edia Services was sent in Peter's place.	Continue to monitoring wildfire smoke forecast and observed conditions; adjust work as necessary.
Observation: Hazard Identification	[July 11, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a moose was observed at Burnt Island. The moose wandered away from the worksite area upon detecting the helicopter and was not observed again throughout the day.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

Summary of Site Activities:

Completed day 3 of 3 of the field program event. Planned scope of work included surface water sampling and visual assessments at Burnt Island, Zenith Island, Kidney Pond, West Bay and Treacy.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Burnt Island	Visual Assessment	[August 22, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed. [June 14, 2024] Completed visual assessment of the Waste Rock Area, Tailings Impoundment Area, and Shaft. No new concerns observed. [June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11a.	Scope complete:

Site Activities:	Monitoring Type	Activity and/or Observation	Scope of Work Pomaining / Recommended
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Camlaren (TSCA)	TSCA Dam Safety Inspection	[July 16, 2024] Completed Dam Safety Inspection. One surface depression/sinkhole was observed near the north end of the TSCA. This sinkhole had not been identified in the April 5, 2024 AECOM Geotechnical Inspection Report. It was, however, identified in Stantec's previous reports, including our YEAR 2 inspection report. Depression/sinkhole does not appear to have progressed further. Partially healed cracks identified in the AECOM 2024 report appeared to have fully healed as the cracks were not visible now. No other significant concerns were identified.	Scope complete.
	TSCA Visual Assessment and Instrumentation Monitoring	[August 20, 2024] Completed groundwater monitoring and sampling at MWT and MW2. Completed visual inspections and data downloads of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA ambankments/berms. [July 20, 2024] Successfully connected to and downloaded data from VT1, VT2, VB1, VB2, and VB3. Datalogger battery life observed to be at -90%Internal clocks observed to be 2 to 4 hours behind. Documented damage to instrumentation: VT1 was observed to have been damaged by wildlife, consisten with historical observations. VT1 datalogger status indicated 'Logging' at 12-hour intervals; however, last data were recorded in September 2022. [July 16, 2024] Veriffed battery voltage in VT1, VT2, VB1, VB2, and VB3. Communicated with in-office K'alo-Stantec automation specialist over satellite phone to troubleshoot instrumentation. Issues persisted: could not establish communication between dataloggers and desktop software interface. [July 11, 2024] Inspected instrumentation batteries and wired connections. Replacement date of September 4, 2020 observed on batteries. Battery in VT1 found to be disconnected from the terminal. Replaced battery in VT1 with supplmenetal battery taken to site: laptop recognized the connected device; however, the software interface could not establish a connection. [July 10, 2024] Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Datalogger battery issue suspected. [June 14, 2024] Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Beviewed DTLogger PC Manual and determined that DT2055 and DT2040 Controller Driver Sets need to be installed on the Field Lead's laptop. Completed aerial visual assessment of the TSCA and on-foot vi	Scope complete.
	SNP Groundwater Monitoring and Sampling	[August 20, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d). Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for sample collection, total and dissolved metals collected. [July 16, 2024] Collected partial sample from MW5 (SNP2016-7c). Insufficient groundwater recovery or full sample collection. [July 11, 2024] Attempted to collect groundwater sample from MW5 (SNP2016-7c). Insufficient recharge was observed: therefore, no sample was collected. [July 10, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7c). MW4 (SNP2016-7c). MW6 (SNP2016-7c). Insufficient water was available for groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection; partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Scope complete.

Site Activities:			
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action
Camlaren TSCA Surface Water Monitoring and Sampling		[August 20, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [July 10, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Scope complete.
Camlaren (Zenith Island)	Visual Assessment	[August 22, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed. [June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[August 22, 2024] Completed surface water monitoring and sampling at SNP2016- 11c. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016- 11c.	Scope complete.
Kidney Pond	Visual Assessment	[August 22, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed. [June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11d.	Scope complete.
ite Activities:			
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommender Action
Treacy	Visual Assessment	[August 22, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed. [June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[August 22, 2024] Completed surface water monitoring and sampling at SNP2016- 11e. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016- 11e.	Scope complete.
West Bay	Visual Assessment	[August 22, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed. [June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[August 22, 2024] Completed surface water monitoring and sampling at SNP2016- 11f. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016- 11f.	Scope complete.

Burnt Island	[August 22, 2024] GLG-2024-00003-009
	[July 11, 2024] GLG-2024-00002-009
	June 13, 2024] GLG-2024-00001-009
	,
Camlaren (TSCA)	[August 20, 2024]GLG-2024-00003-001, GLG-2024-00003-002, GLG-2024-00003-003, GLG-2024-00003-004, GLG-2024-00003-006, GLG-2024-00003-010,
	GLG-2024-00003-011, GLG-2024-00003-012, GLG-2024-00003-013, GLG-2024-00003-005 (partial)
	[July 16, 2024] GLG-2024-00002-005 (partial)
	[July 10, 2024] GLG-2024-00002-001, GLG-2024-00002-002, GLG-2024-00002-003, GLG-2024-00002-004, GLG-2024-00002-006, GLG-2024-00002-010, GLG-2024-0
	2024-00002-011, GLG-2024-00002-012, GLG-2024-00002-013, GLG-2024-00002-019
	[June 14, 2024] GLG-2024-00001-005 (partial), GLG-2024-00001-010, GLG-2024-00001-011, GLG-2024-00001-012, GLG-2024-00001-013
	[June 12, 2024] GLG-2024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024-00001-004, GLG-2024-00001-006
	14 10 00 00 00 00 00 00 00 00
Camlaren (Zenith Island)	[August 22, 2024] GLG-2024-00003-014 [July 11, 2024] GLG-2024-00002-014
	June 13, 2024 GLG-2024-00001-014 June 13, 2024 GLG-2024-00001-014
Kidney Pond	[August 22, 2024] GLG-2024-00003-015
	[July 11, 2024] GLG-2024-00002-015
	[June 13, 2024] GLG-2024-00001-015
Treacy	[August 22, 2024] GLG-2024-00003-016
	[July 11, 2024] GLG-2024-00002-016
	[June 13, 2024] GLG-2024-00001-016
West Bay	[August 22, 2024] GLG-2024-00003-017
	[July 11, 2024] GLG-2024-00002-017
	[June 13, 2024] GLG-2024-00001-017
Quality Control	[August 22, 2024] GLG-2024-00003-020 (surface water BFD), GLG-2024-00003-022 (Trip Blank), GLG-2024-00003-023 (Field Blank)
,	[August 20, 2024] GLG-2024-00001-019 (groundwater BFD)
	[July 11, 2024] GLG-2024-00002-020 (surface water BFD), GLG-2024-00002-022 (Trip Blank), GLG-2024-00002-023 (Field Blank)
	[July 10, 2024] GLG-2024-00001-019 (groundwater BFD)
	[June 13, 2024] GLG-2024-00001-020 (surface water BFD)
	[June 12, 2024] GLG-2024-00001-019 (groundwater BFD), GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank)
Samples Not Collected	[August 20, 2024] GLG-2024-00003-007, GLG-2024-00003-008
Jampies Not Collected	July 10, 2024] GLG-2024-00002-007, GLG-2024-00003-006 July 10, 2024] GLG-2024-00002-007, GLG-2024-00002-008
	June 12 , 2024] GLG-2024-00007-007, GLG-2024-00001-008
	partic (2 , 2924) GEO 2924 00001 007, GEO-2024-00001-000
atory Concerns	1

Daily Photo Record



Photo 1 Sampling location SNP2016-11d at Kidney Pond, facing north.



Darryl Bohnet collecting a surface water sample from SNP2016-11f at West Bay, facing southwest.



Darryl Bohnet measuring in-situ water quality parameters at SNP2016-11 (Burnt Island), facing northeast.

Daily Photo Record



Photo 4
Burnt Island Portal, facing southwest.



Photo 5
Sampling location SNP2016-11f at West Bay, facing north.



Surface water sampling location SNP2016-11e at Treacy, facing southeast.

Gordon Lake Group Sites Daily Report					
Client: PSPC/CIRNAC Report Date: September 11, 2024					
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec		
Stantec Project Number	123515016	Day Shift Hours	07:00-19:00		
Weather:	Partly Cloudy, Calm, 5 to 14°C	Report by:	Magda Celejewski		

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	None.
Ek'edia	1	1	
K'alo-Stantec	2	0	

Personnel:

Name	Position
Magda Celejewski	K'alo-Stantec Field Lead
Jolene Moyer	K'alo-Stantec Field Crew
Peter Crookedhand	Ek'edia Wildlife Monitor
Luke Spence	Acasta Pilot

Communications:

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on September 9, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site

Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:38 and arrived at Kidney Pond at 10:14. Helicopter departed Kidney Pond at 10:42 and arrived at Treacy at 10:53.

Helicopter departed Treacy at 11:15 and arrived at West Bay at 11:30.

Helicopter departed West Bay at 11:55 and arrived at Zenith Island at 12:07.

Helicopter departed Zenith Island at 12:25 and arrived at Camlaren at 12:34. Helicopter departed Camlaren at 13:42 and arrived at Burnt Island at 13:54.

Helicopter departed Burnt Island at 14:41 and arrived at Yellowknife Acasta at 15:31.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure. Completed tailgate safety meeting including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at Kidney Pond.

HSSE Leading Indicator/Report Submission Type	Report/Incident Description	Recommended Action
	[August 21, 2024] Peter Crookedhand indicated he could not work outside due to wildfire smoke. Norman Betsina of Ek'edia Services was sent in Peter's place.	Continue to monitoring wildfire smoke forecast and observed conditions; adjust work as necessary.
Observation: Hazard Identification	[July 11, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a moose was observed at Burnt Island. The moose wandered away from the worksite area upon detecting the helicopter and was not observed again throughout the day.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

Summary of Site Activities:

Completed day 1 of 2 of the field program event. Planned scope of work included surface water sampling and visual assessments at Burnt Island, Zenith Island, Kidney Pond, West Bay, and Treacy, and visual assessments and data downloads from instrumentation at Camlaren.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommende Action
Burnt Island Visual Assessme		[September 11, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed. [August 22, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed. [June 14, 2024] Completed visual assessment of the Waste Rock Area, Tailings Impoundment Area, and Shaft. No new concerns observed. [June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[September 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11a.	Scope complete.

Site Activities: Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommende	
Camlaren (TSCA)	TSCA Dam Safety Inspection	[July 16, 2024] Completed Dam Safety Inspection. One surface depression/sinkhole was observed near the north end of the TSCA. This sinkhole had not been identified in the April 5, 2024 AECOM Geotechnical Inspection Report. It was, however, identified in Stantec's previous reports, including our YEAR 2 inspection report. Depression/sinkhole does not appear to have progressed further. Partially healed cracks identified in the AECOM 2024 report appeared to have fully healed as the cracks were not visible now. No other significant concerns were identified.	Action Scope complete.	
	TSCA Visual Assessment and Instrumentation Monitoring	September 11, 2024] Completed visual inspections and data downloads of VB1, VB2, VB3, VT1, and VT2. Completed aerial visual assessment of the TSCA and onfoot visual assessment of the TSCA embankments/berms. Some animal soil disturbance observed on the TSCA. [August 20, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections and data downloads of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA embankments/berms. [July 20, 2024] Successfully connected to and downloaded data from VT1, VT2, VB1, VB2, and VB3. Datalogger battery life observed to be at -90%Internal clocks observed to be 2 to 4 hours behind. Documented damage to instrumentation: VT1 was observed to have been damaged by wildlife, consisten with historical observations. VT1 datalogger status indicated "Logging" at 12-hour intervals; however, last data were recorded in September 2022. [July 16, 2024] Veriffied battery voltage in VT1, VT2, VB1, VB2, and VB3. Communicated with in-office Kalo-Stantec automation specialist over satellite phone to troubleshoot instrumentation. Issues persisted; could not establish communication between dataloggers and desktop software interface. [July 11, 2024] Inspected instrumentation batteries and wired connections. Replacement date of September 4, 2020 observed on batteries. Battery in VT1 (ound to be disconnected from the terminal. Replaced battery in VT1 with supplementated battery taken to site; laptop recognized the connected device; however, the software interface could not establish a connection. [July 11, 2024] Completed visual inspections of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established. Datalogger battery issue suspected. [June 14, 2024] Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to th	Remaining scope to be completed during subsequent field program event site visit.	
	SNP Groundwater Monitoring and Sampling	[August 20, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d). Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for sample collection, total and dissolved metals collected. [July 16, 2024] Collected partial sample from MW5 (SNP2016-7c). Insufficient groundwater recovery or full sample collection. [July 11, 2024] Attempted to collect groundwater sample from MW5 (SNP2016-7c). Insufficient recharge was observed; therefore, no sample was collected. [July 10, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7b), Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection: partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7d). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	To be completed during subsequent field program event site visit.	

Site Activities:				
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended Action	
Camlaren TSCA	Surface Water Monitoring and Sampling at SNP2016-11b1, SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [July 10, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b1, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b1, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.		To be completed during subsequent field program event site visit.	
Camlaren (Zenith Island)	Visual Assessment	September 11, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed. [August 22, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed. [June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed.	Scope complete.	
	Surface Water Monitoring and Sampling	[September 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c.	Scope complete.	
Kidney Pond	Visual Assessment	[September 11, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed. [August 22, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed. [June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed.	Scope complete.	
	Surface Water Monitoring and Sampling	[Sepember 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11d.	Scope complete.	
Site Activities: Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended	
Treacy	Visual Assessment	[September 11, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed. [August 22, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed. [June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed.	Action Scope complete.	
	Surface Water Monitoring and Sampling	[September 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e.	Scope complete.	
West Bay	Visual Assessment	[September 11, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed. [August 22, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed. [June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed.	Scope complete.	
	Surface Water Monitoring and Sampling	[September 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f.	Scope complete.	

Burnt Island	[September 11, 2024] GLG-2024-00004-009
Barra Islama	[August 22, 2024] GLG-2024-00003-009
	July 11, 2024] GLG-2024-00002-009
	[June 13, 2024] GLG-2024-00001-009
Camlaren (TSCA)	August 20, 2024 GLG-2024-00003-001, GLG-2024-00003-002, GLG-2024-00003-003, GLG-2024-00003-004, GLG-2024-00003-006, GLG-2024-00003-010
	GLG-2024-00003-011, GLG-2024-00003-012, GLG-2024-00003-013, GLG-2024-00003-005 (partial)
	[July 16, 2024] GLG-2024-00002-005 (partial)
	[July 10, 2024] GLG-2024-00002-001, GLG-2024-00002-002, GLG-2024-00002-003, GLG-2024-00002-004, GLG-2024-00002-006, GLG-2024-00002-010, GLG-2024-0
	2024-00002-011, GLG-2024-00002-012, GLG-2024-00002-013, GLG-2024-00002-019
	June 14, 2024] GLG-2024-00001-005 (partial), GLG-2024-00001-010, GLG-2024-00001-011, GLG-2024-00001-012, GLG-2024-00001-013
	June 12, 2024] GLG-2024-00001-001, GLG-2024-00001-002, GLG-2024-00001-003, GLG-2024-00001-004, GLG-2024-00001-006
	[241.5.12] 222.1 (222.1000) 301, 222.201, 3000, 301, 222.201, 3000, 301, 222.201, 3000, 301, 222.201, 3000, 301, 222.201, 3000, 301, 222.201, 3000, 301, 222.201, 3000, 301, 222.201, 3000, 301, 222.201, 3000, 301, 222.201, 301, 301, 301, 301, 301, 301, 301, 3
Camlaren (Zenith Island)	[September 11, 2024] GLG-2024-00004-014
	[August 22, 2024] GLG-2024-00003-014
	[July 11, 2024] GLG-2024-00002-014
	[June 13, 2024] GLG-2024-00001-014
Kidney Pond	[September 11, 2024] GLG-2024-00004-015
•	[August 22, 2024] GLG-2024-00003-015
	[July 11, 2024] GLG-2024-00002-015
	[June 13, 2024] GLG-2024-00001-015
Treacy	[September 11, 2024] GLG-2024-00004-016
	[August 22, 2024] GLG-2024-00003-016
	[July 11, 2024] GLG-2024-00002-016
	[June 13, 2024] GLG-2024-00001-016
West Bay	[September 11, 2024] GLG-2024-00004-017
,	[August 22, 2024] GLG-2024-00003-017
	[July 11, 2024] GLG-2024-00002-017
	[June 13, 2024] GLG-2024-00001-017
Quality Control	[September 11, 2024] GLG-2024-00004-020 (surface water BFD), GLG-2024-00004-022 (Trip Blank), GLG-2024-00004-023 (Field Blank)
Quality Cornior	[August 22, 2024] GLG-2024-00004-020 (surface water BFD), GLG-2024-00003-022 (Trip Blank), GLG-2024-00003-023 (Field Blank)
	[August 20, 2024] GLG-2024-00001-019 (groundwater BFD)
	[July 11, 2024] GLG-2024-00002-020 (surface water BFD), GLG-2024-00002-022 (Trip Blank), GLG-2024-00002-023 (Field Blank)
	[July 10, 2024] GLG-2024-00001-019 (groundwater BFD)
	[June 13, 2024] GLG-2024-00001-020 (surface water BFD)
	[June 12, 2024] GLG-2024-00001-019 (groundwater BFD), GLG-2024-00001-022 (Trip Blank), GLG-2024-00001-023 (Field Blank)
Samples Not Collected	[August 20, 2024] GLG-2024-00003-007, GLG-2024-00003-008
	July 10, 2024] GLG-2024-00002-007, GLG-2024-00002-008
	June 12 , 2024] GLG-2024-00001-007, GLG-2024-00001-008

DIRECTION 12V 381652 ACCURACY 4 m 87 deg(T) 6982661 DATUM WGS84

hoto 1

Sampling location SNP2016-11d at Kidney Pond, facing north.



SNP 2016-11d

GLG - Kidney Lake

2024-09-11 0:32:32-06:00

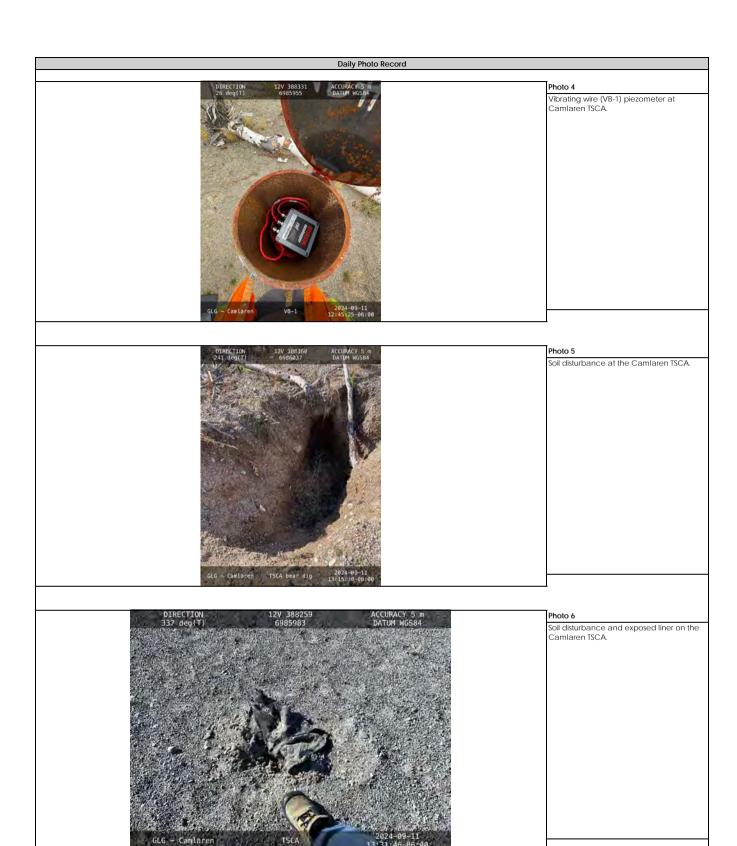
hoto 2

Jolene Moyer collecting a surface water sample from SNP 2016-11e at Treacy.



hoto 3

Jolene Moyer collecting a surface water sample from SNP 2016-11f at West Bay.



Gordon Lake Group Sites Daily Report					
Client: PSPC/CIRNAC Report Date: September 12, 2024					
Project:	Akaitcho Sites Long-Term Monitoring	Contractor:	K'alo-Stantec		
Stantec Project Number 123515016 Day Shift Hours 07:00-19:00					
Weather:	Sunny, breezy, 5 to 14°C	Report by:	Magda Celejewski		

Company	Total # of Workers	# of Aboriginal Workers	Note:
Acasta	1	0	Joseph Gonin with the North Slave Métis
Ek'edia	1	l l	Alliance accompanied K'alo-Stantec as
North Slave Métis Alliance	1	0	part of the Job Shadow Training Program.
K'alo-Stantec	2	0	

Personnel:			
Name	Position		
Magda Celejewski	K'alo-Stantec Field Lead		
Jolene Moyer	K'alo-Stantec Field Crew		
Peter Crookedhand	Ek'edia Wildlife Monitor		
Joseph Gonin	North Slave Métis Alliance		
Luke Spence	Acasta Pilot		

Communications:

440 Squadron and applicable Yellowknife airline operators were notified of field schedule on September 9, 2024.

Acasta pilot followed call out procedures upon arrival to and departure from site.

Followed check-in and check-out procedures per the Site-Specific Health and Safety Plan, Emergency Response Plan, and Project HHSE Plan(Risk Management Strategy [RMS] 1).

Logistics:

Helicopter departed Yellowknife Acasta at 08:58 and arrived at Camlaren at 9:41.

Helicopter departed Camlaren at 14:08 and arrived at Yellowknife Acasta at 14:50.

Health, Safety, Security, and Environment:

Completed safety briefing at Acasta prior to departure from Yellowknife, including Acasta video safety demonstration and aircraft orientation. Acasta pilot demonstrated the use of helicopter doors, the location of safety equipment within the aircraft, and provided general safety information related to the aircraft prior to departure.

Completed tailgate safety meeting including a review of the Project HSSE Plan (RMS 1 form), Emergency Response Plan, and Field-Level Risk Assessment (RMS 2 form), upon arrival at

Camilaren.

HSSE Leading Indicator/Report Submission Type

[August 21, 2024] Peter Crookedhand indicated he could not work outside due to wildfire smoke. Norman Continue to monitoring wildfire smoke

Submission Type		
	[August 21, 2024] Peter Crookedhand indicated he could not work outside due to wildfire smoke. Norman Betsina of Ek'edia Services was sent in Peter's place.	Continue to monitoring wildfire smoke forecast and observed conditions; adjust work as necessary.
Observation: Hazard	[July 11, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a moose was observed at Burnt Island. The moose wandered away from the worksite area upon detecting the helicopter and was not observed again throughout the day.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
Identification	[June 12, 2024] While completing an aerial assessment for potential wildlife in the work area prior to landing, a black bear was observed at Kidney Pond. No work was completed in the Kidney Pond area.	Continue to complete aerial assessments of the work area prior to landing and devise an alternate plan as appropriate.
	[June 12, 2024] Approximately 10 Arctic Terns were observed at Camlaren. The birds were territorial and aggressive on and near the TSCA. Efforts were made to avoid the birds.	Be aware the migratory birds can be territorial. Avoid nesting areas as practical.

Summary of Site Activities:

Completed day 2 of 2 of the field program event. Planned scope of work included surface water and groundwater monitoring and sampling at Camlaren.

Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommende Action
Burnt Island Visual Assess	Visual Assessment	[September 11, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed. [August 22, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed. [June 14, 2024] Completed visual assessment of the Waste Rock Area, Taillings impoundment Area, and Shaft. No new concerns observed. [June 13, 2024] Completed visual assessment of BUR_SO_07 and Portal. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[September 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11a. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11a.	Scope complete.

Site Activities:			
Component / Area	Component / Area Monitoring Type Activity and/or Observation		Scope of Work Remaining / Recommended Action
Camlaren (TSCA)	TSCA Dam Safety Inspection	[July 16, 2024] Completed Dam Safety Inspection. One surface depression/sinkhole was observed near the north end of the TSCA. This sinkhole had not been identified in the April 5, 2024 AECOM Geotechnical Inspection Report. It was, however, identified in Stantec's previous reports, including our YEAR 2 inspection report. Depression/sinkhole does not appear to have progressed further. Partially healed cracks identified in the AECOM 2024 report appeared to have fully healed as the cracks were not visible now. No other significant concerns were identified.	Scope complete.
	TSCA Visual Assessment and Instrumentation Monitoring	[September 12, 2024] Measured TOC of TSCA instrumentation. Completed groundwater monitoring and sampling at MW1 and MW2. September 11, 2024] Completed visual inspections and data downloads of VB1, VB2, VB3, VT1, and VT2. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA embankments/berms. Some animal soil disturbance observed on the TSCA. [August 20, 2024] Completed groundwater monitoring and sampling at MW1 and MW2. Completed visual inspections and data downloads of VB1, VB2, VB3, VT1, and VT2 including TOC measurements. Completed aerial visual assessment of the TSCA and on-foot visual assessment of the TSCA embankments/berms. July 20, 2024] Successfully connected to and downloaded data from VT1, VT2, VB1, VB2, and VB3. Datalogger battery life observed to be a to +00%Internal clocks observed to be 2 to 4 hours behind. Documented damage to instrumentation: VT1 was observed to have been damaged by wildlife, consisten with historical observations. VT1 datalogger status indicated 'Logging' at 12-hour intervals: nowever, last data were recorded in September 2022. [July 16, 2024] Veriffied battery voltage in VT1, VT2, VB1, VB2, and VB3. Communicated with in-office K3io-Stantec automation specialist over satellite phone to troubleshoot instrumentation. Issues persisted: could not establish communication between dataloggers and desktop software interface. July 11, 2024] Inspected instrumentation batteries and wired connections. Replacement date of September 4, 2020 observed on batteries. Battery in VT1 found to be disconnected from the terminal. Replaced battery in VT1 with supplemental battery taken to site: laptop recognized the connected device; however, the software interface could not establish a connection to the instruments over USB communication port could not be established. Datalogger battery issue suspected. June 14, 2024] Attempted to download data from VB1, VB2, VB3, VT1, and VT2 but connection to the instruments over USB communication port could not be established.	Scope complete.

ite Activities:		A 11 11 11 11 11 11 11	In
Component / Area	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommender Action
Camlaren (TSCA)	SNP Groundwater Monitoring and Sampling	[September 12, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d). Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for sample full collection: partial sample collected. [August 20, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d). Completed groundwater monitoring at MW5 (SNP 2016-7c). Insufficient water was available for full sample collection, total and dissolved metals collected. [July 16, 2024] Collected partial sample from MW5 (SNP2016-7c). Insufficient groundwater recovery or full sample collection. [July 11, 2024] Attempted to collect groundwater sample from MW5 (SNP2016-7c). Insufficient recharge was observed; therefore, no sample was collected. [July 10, 2024] Competed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), MW6 (SNP2016-7d), MW2, and MW1. Completed groundwater monitoring at MW5 (SNP2016-7c). Insufficient water was available for sample collection. Repaired fallen SNP station identification sign at MW6 (SNP2016-7d). [June 14, 2024] Retrieved and disposed of the bailer lodged in MW5 (SNP2016-7c) and completed groundwater monitoring and sampling. Insufficient water available for full sample collection: partial sample collected. [June 12, 2024] Completed groundwater monitoring and sampling at MW3 (SNP2016-7a), MW4 (SNP2016-7b), and MW6 (SNP2016-7a). A blockage was observed at 0.785 mBTOP in MW5 and was determined to be a bailer and twine.	Scope complete.
	Surface Water Monitoring and Sampling	[September 12, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [August 20, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [July 10, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore, no samples were collected at these two stations. [June 14, 2024] Completed surface water monitoring and sampling at SNP2016-11b1, SNP2016-11b2, SNP2016-11b3, and SNP2016-11b4. [June 12, 2024] No discharge/seepage was observed at SNP2016-8a or SNP2016-8b; therefore no samples were collected.	Scope complete.
Camlaren (Zenith Island)	Visual Assessment	[September 11, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed. [August 22, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed. [June 13, 2024] Completed visual assessment of CAM_SO_23. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[September 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11c. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11c.	Scope complete.
Kidney Pond	Visual Assessment	[September 11, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed. [August 22, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed. [June 13, 2024] Completed visual assessment of KID_SO_07, KID_SO_10, KID_SO_11, and Portal. No new concerns observed.	Scope complete.
	Surface Water Monitoring and Sampling	[Sepember 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11d. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11d.	Scope complete.

	Monitoring Type	Activity and/or Observation	Scope of Work Remaining / Recommended		
			Action		
Treacy	Visual Assessment	[September 11, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed. [August 22, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed. [June 13, 2024] Completed visual assessment of TRE_SO_01, TRE_SO_02, East Trench and West Trench. No new concerns observed.	Scope complete.		
	Surface Water Monitoring and Sampling	[September 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11e. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11e.	Scope complete.		
West Bay	Visual Assessment	[September 11, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed. [August 22, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed. [June 13, 2024] Completed visual assessment of WES_TL_01, WEST_SO_02, and Open Pit. No new concerns observed.	Scope complete.		
	Surface Water Monitoring and Sampling	[September 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [August 22, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [July 11, 2024] Completed surface water monitoring and sampling at SNP2016-11f. [June 13, 2024] Completed surface water monitoring and sampling at SNP2016-11f.	Scope complete.		
impling Completed:					
Burnt Island	[September 11, 2024] GLG-2024-00004-009 [August 22, 2024] GLG-2024-00003-009 [July 11, 2024] GLG-2024-00002-009 [June 13, 2024] GLG-2024-00001-009				
Camlaren (TSCA)	[September 12, 2024]GLG-2024-00004-001, GLG-2024-00004-002, GLG-2024-00004-003, GLG-2024-00004-004, GLG-2024-00004-006, GLG-2024-00004-016, GLG-2024-00004-016, GLG-2024-00004-016, GLG-2024-00004-016, GLG-2024-00003-016, GLG-2024-00003-010, GLG-2024-00003-010, GLG-2024-00003-010, GLG-2024-00003-011, GLG-2024-00003-012, GLG-2024-00003-013, GLG-2024-00003-005 (partial) [July 16, 2024] GLG-2024-00002-005 (partial) [July 10, 2024] GLG-2024-00002-015, GLG-2024-00002-002, GLG-2024-00002-010, GLG-2024-00002-011, GLG-2024-00002-012, GLG-2024-00002-013, GLG-2024-00002-011, GLG-2024-00002-013, GLG-2024-00002-011, GLG-2024-00002-013, GLG-2024-00002-019 [June 14, 2024] GLG-2024-00001-015 (partial), GLG-2024-00001-016, GLG-2024-00001-017, GLG-2024-00001-016, GLG-2024-00				
Camlaren (Zenith Island)	[September 11, 2024] GLG-2024-00004-014 [August 22, 2024] GLG-2024-00003-014 [July 11, 2024] GLG-2024-00002-014 [June 13, 2024] GLG-2024-00001-014				
Kidney Pond	[September 11, 2024] GLG-2024-00004-015 [August 22, 2024] GLG-2024-00003-015 [July 11, 2024] GLG-2024-00002-015 [June 13, 2024] GLG-2024-00001-015				
Treacy		024-00001-015 GLG-2024-00004-016 -2024-00003-016 24-00002-016			
Treacy West Bay	[June 13, 2024] GLG-2 [September 11, 2024] [August 22, 2024] GLG [July 11, 2024] GLG-20	024-00001-015 GLG-2024-00004-016 -2024-00003-016 24-00002-016 024-00001-016 GLG-2024-00004-017 -2024-00003-017 24-00002-017			
	[June 13, 2024] GLG-2 [September 11, 2024] [August 22, 2024] GLG-2 [July 11, 2024] GLG-2 [July 11, 2024] GLG-2 [September 11, 2024] GLG-2 [July 11, 2024] GLG-2 [June 13, 2024] GLG-2 [June 13, 2024] GLG-2 [September 11, 2024] [September 11, 2024] [August 22, 2024] GLG-2 [July 11, 2024] GLG-2 [July 11, 2024] GLG-2 [July 10, 2024] GLG-2 [June 13, 2024] GLG-2	024-00001-015 GLG-2024-00004-016 -2024-00003-016 24-00002-016 024-00001-016 GLG-2024-00004-017 -2024-00003-017 24-00002-017	03-023 (Field Blank)		
West Bay	[September 11, 2024] [August 22, 2024] GLG-2 [July 11, 2024] GLG-2 [July 11, 2024] GLG-2 [June 13, 2024] GLG-2 [September 11, 2024] [August 22, 2024] GLG-2 [June 13, 2024] GLG-2 [June 13, 2024] GLG-2 [September 11, 2024] [September 11, 2024] [August 20, 2024] GLG-2 [July 11, 2024] GLG-2 [July 11, 2024] GLG-2 [July 10, 2024] GLG-2 [June 13, 2024] GLG-2 [June 12, 2024] GLG-	024-00001-015 GLG-2024-00004-016 -2024-00003-016 24-00002-016 024-00001-016 GLG-2024-00004-017 -2024-00003-017 24-00002-017 024-00001-017 GLG-2024-00004-019 (groundwater BFD) GLG-2024-00004-020 (surface water BFD), GLG-2024-00004-022 (Trip Blank), GLG-2024-00003-020 (surface water BFD), GLG-2024-00003-022 (Trip Blank), GLG-2024-00003-020 (surface water BFD), GLG-2024-00003-022 (Trip Blank), GLG-2024-00003-020 (surface water BFD), GLG-2024-00003-022 (Trip Blank), GLG-2024-00002-0203-019 (groundwater BFD) 24-00002-019 (groundwater BFD) 024-00002-019 (groundwater BFD) 024-00001-020 (surface water BFD)	03-023 (Field Blank)		

DIRECTION LOCATION Unavailable Unavailable Unavailable

Photo

Joseph Gonin completing groundwater monitoring and sampling at MW3 (SNP2016-7a).



hoto 2

Seepage sampling location SNP2016-8a, observed to be dry.



Photo 3

Jolene Moyer completing groundwater monitoring and sampling at MW1.

Daily Photo Record

Jolene Moyer collecting a surface water sample at SNP2016-11b4.



Photo 5
Seepage sampling location SNP2016-8b, observed to be dry.

Appendix F Copies of Laboratory Certificates of Analysis



ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Work Order : YL2400658 Page : 1 of 11

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Account Manager Contact : Natalie Normandeau : Oliver Gregg Address

: 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 3T3

Telephone Telephone : 1 867 445 7143 **Project** Date Samples Received : 123515016 : 13-Jun-2024 11:00

PO **Date Analysis Commenced** : 14-Jun-2024

C-O-C number Issue Date : 20-Jun-2024 16:56 Sampler

Site Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received : 8 No. of samples analysed : 8

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
- Surrogate Control Limits

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	
Cynthia Bauer	Organic Supervisor	Organics, Calgary, Alberta	
Elke Tabora	Lab Analyst	Inorganics, Calgary, Alberta	
Erin Sanchez		Metals, Burnaby, British Columbia	
Hannah Phung	Lab Assistant	Inorganics, Calgary, Alberta	
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta	
Jyotsnarani Devi	Laboratory Analyst	Organics, Calgary, Alberta	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia	
Monica Ko	Lab Assistant	Inorganics, Burnaby, British Columbia	
Owen Cheng		Metals, Burnaby, British Columbia	
Shirley Li	Team Leader - Inorganics	Inorganics, Calgary, Alberta	

Page : 2 of 11 Work Order : YL2400658

Client : Stantec Consulting Ltd.

Project : 123515016



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less 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.

Sample Comments

Sample	Client Id	Comment
YL2400658-001	GLG-2024-00001-001	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400658-002	GLG-2024-00001-002	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400658-003	GLG-2024-00001-003	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400658-004	GLG-2024-00001-004	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400658-005	GLG-2024-00001-006	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400658-006	GLG-2024-00001-019	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.

>: greater than.

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Stantec Consulting Ltd. 123515016 Client

Project

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).

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Stantec Consulting Ltd. 123515016 Client

Project



Sub-Matrix: Water	sub-Matrix: Water Client samp.						GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					1-001	1-002	1-003	1-004	1-006
			Client sampling date / time		12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400658-001	YL2400658-002	YL2400658-003	YL2400658-004	YL2400658-005
					Result	Result	Result	Result	Result
Physical Tests		-							100
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	336	536	855	239	189
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	336	536	855	239	189
Conductivity		E100/VA	2.0	μS/cm	2700	6580	2290	1240	625
рН		E108/VA	0.10	pH units	7.57	7.97	7.45	7.72	8.25
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	2440	5680	1840	946	436
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	65.1	38.5	39.7	27.3	2.1
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	1520	1400	1320	624	332
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/CG	0.0050	mg/L	1.50	2.53	1.31	0.752	0.0098
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	11.6	253	31.7	9.13	0.84
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	<0.100 DLDS	<0.250 DLDS	<0.100 DLDS	<0.0250 DLDS	2.76
Nitrate (as NO3)	14797-55-8	A EC235.NO3A/ VA	0.010	mg/L	<0.443	<1.11	<0.443	<0.111	12.2
Nitrate + Nitrite (as N)		EC235.N+N/V A	0.0050	mg/L	<0.102	<0.255	<0.102	<0.0255	2.76
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0200 DLDS	<0.0500 DLDS	<0.0200 DLDS	<0.0050 DLDS	0.0051
Nitrite (as NO2)	14797-65-0	EC235.NO2A/ VA	0.0030	mg/L	<0.0656	<0.164	<0.0656	<0.0164	0.0167
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	0.0072
Phosphorus, total		E372-U/CG	0.0020	mg/L	0.0236	0.0572	0.0980	<0.0020	0.0206
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	1370	3100	563	460	139
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/CG	0.50	mg/L	3.37	13.0	19.5	11.8	3.74
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.132	0.0347	0.0155	0.0537	0.0633
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	<0.00020 DLA	0.00074	<0.00020 DLA	0.00027	0.00405

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Stantec Consulting Ltd. 123515016 Client

Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				1-001	1-002	1-003	1-004	1-006
			ling date / time	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400658-001	YL2400658-002	YL2400658-003	YL2400658-004	YL2400658-005
				Result	Result	Result	Result	Result
Total Metals Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.0145	0.0988	0.0170	0.0294	0.00419
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0236	0.0223	0.261	0.0534	0.0317
Beryllium, total	7440-39-3 E420/VA 7440-41-7 E420/VA	0.00010	mg/L	<0.00040 DLA	<0.00223	<0.00040 DLA	<0.00040 DLA	<0.00020
Bismuth, total	7440-69-9 E420/VA	0.000020	mg/L	<0.000100 DLA	<0.000100 DLA	<0.000100 DLA	<0.000100 DLA	<0.000050
Boron, total	7440-09-9 E 120/VA 7440-42-8 E420/VA	0.010	mg/L	0.129	0.138	0.096	<0.020 DLA	0.011
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	0.000341	0.00309	<0.000100 DLA	0.0000433	0.0000229
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	445	406	340	184	115
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	0.000040	<0.000050 DLA	<0.000020 DLA	0.000022	<0.000010
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00100 DLA	<0.00250 DLA	<0.00100 DLA	<0.00100 DLA	<0.00050
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.0147	0.466	0.0214	0.0130	0.00044
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	<0.00100 DLA	<0.00250 DLA	<0.00100 DLA	0.00212	0.00199
Iron, total	7439-89-6 E420/VA	0.010	mg/L	42.8	19.8	14.3	12.1	0.242
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	0.000558	0.00166	<0.000100 DLA	0.000587	0.000188
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0278	0.0378	0.0294	0.0029	0.0019
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	116	86.6	99.4	35.9	11.4
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	1.46	11.1	3.92	10.7	0.0614
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000804	0.00544	0.000656	0.00223	0.00470
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.00939	0.799	0.00219	0.0336	0.00314
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.100 DLA	<0.250 DLA	0.131	<0.100 DLA	<0.050
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	54.2	76.9	25.7	6.50	2.05
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00765	0.00586	0.00159	0.00344	0.00114
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.000141	0.000913	0.000177	0.000152	0.00166
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	12.9	9.58	12.0	6.80	5.05
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	0.000020	0.000064	<0.000020 DLA	0.000048	0.000014
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	98.8	1340	120	43.1	3.67
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	4.30	3.52	2.16	0.604	0.364
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	523	1140	206	167	50.1
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	0.00040	<0.00100 DLA	<0.00040 DLA	<0.00040 DLA	<0.00020
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000020 DLA	<0.000050 DLA	<0.000020 DLA	<0.000020 DLA	<0.000010

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Stantec Consulting Ltd. 123515016 Client

Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				1-001	1-002	1-003	1-004	1-006
		Client samp	ling date / time	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400658-001	YL2400658-002	YL2400658-003	YL2400658-004	YL2400658-005
				Result	Result	Result	Result	Result
Total Metals								
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00020 DLA	<0.00050 DLA	<0.00020 DLA	<0.00020 DLA	<0.00010
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00020 DLA	<0.00050 DLA	<0.00020 DLA	<0.00020 DLA	0.00045
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	<0.00060 DLA	<0.00150 DLA	0.00141 DLM	<0.00060 DLA	0.00240 DLM
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	0.00059	0.00087	<0.00020 DLA	<0.00020 DLA	<0.00010
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.00111	0.0116	0.0121	0.00148	0.00342
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00100 DLA	<0.00250 DLA	0.00132	<0.00100 DLA	<0.00050
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	0.0659	3.04	<0.0060 DLA	0.0073	0.0085
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00040 DLA	<0.00180 DLM	0.00308	<0.00040 DLA	<0.00020
Dissolved Metals								
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	424	386	364	192	115
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	111	105	100	35.2	10.8
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	53.4	81.2	25.8	6.41	2.10
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	93.5	1540	116	40.8	3.41
Dissolved metals filtration location	EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2 E611A/CG	0.50	μg/L	1.45	<0.50	<0.50	0.60	<0.50
Ethylbenzene	100-41-4 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	2.47	<0.50
Toluene	108-88-3 E611A/CG	0.50	μg/L	1.11	<0.50	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1 E611A/CG	0.50	μg/L	0.62	<0.50	<0.50	3.00	<0.50
Xylene, o-	95-47-6 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes, total	1330-20-7 E611A/CG	0.75	μg/L	<0.75	<0.75	<0.75	3.00	<0.75
BTEX, total	E611A/CG	1.2	μg/L	3.2	<1.2	<1.2	6.1	<1.2
Hydrocarbons								
F1 (C6-C10)	E581.F1/CG	100	μg/L	<100	<100	<100	<100	<100
F1-BTEX	EC580/CG	100	μg/L	<100	<100	<100	<100	<100
F2 (C10-C16)	E601/CG	100	μg/L	110	<100	<100	1180	<100
F3 (C16-C34)	E601/CG	250	μg/L	<250	<250	<250	<250	<250
F4 (C34-C50)	E601/CG	250	μg/L	<250	<250	<250	<250	<250
Hydrocarbons, total (C6-C50)	n/a EC581/CG	400	μg/L	<400	<400	<400	1180	<400
Hydrocarbons Surrogates								
- January Marie San Garage								

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Client : Stantec Consulting Ltd.

Project : 123515016

ALS

Analytical Results

Sub-Matrix: Water			Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					1-001	1-002	1-003	1-004	1-006
			Client samp	ling date / time	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400658-001	YL2400658-002	YL2400658-003	YL2400658-004	YL2400658-005
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 l	E601/CG	1.0	%	89.0	89.9	84.2	84.0	84.4
Dichlorotoluene, 3,4-	95-75-0 l	E581.F1/CG	1.0	%	84.7	96.0	81.7	74.4	86.1
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 l	E611A/CG	1.0	%	95.5	98.0	100	96.9	96.3
Difluorobenzene, 1,4-	540-36-3	E611A/CG	1.0	%	104	108	108	104	105

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

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

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Stantec Consulting Ltd. 123515016 Client

Project



Sub-Matrix: Water			CI	lient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					1-019	1-022	1-023	
			Client samp	oling date / time	12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400658-006	YL2400658-007	YL2400658-008	
					Result	Result	Result	
Physical Tests								
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	191			
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0			
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0			
Alkalinity, phenolphthalein (as CaCO3)	[E290/VA	1.0	mg/L	<1.0			
Alkalinity, total (as CaCO3)	[E290/VA	1.0	mg/L	191			
Conductivity	[E100/VA	2.0	μS/cm	625			
рН	[E108/VA	0.10	pH units	8.29			
Solids, total dissolved [TDS]	[E162-L/VA	3.0	mg/L	411			
Solids, total suspended [TSS]	[E160-L/VA	1.0	mg/L	1.7			
Hardness (as CaCO3), dissolved	[EC100/VA	0.50	mg/L	322			
Anions and Nutrients								
Ammonia, total (as N)	7664-41-7 l	E298/CG	0.0050	mg/L	0.0066			
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	0.81			
Nitrate (as N)	14797-55-8 I	E235.NO3-L/V	0.0050	mg/L	2.73			
Nitrate (as NO3)		A EC235.NO3A/ VA	0.010	mg/L	12.1			
Nitrate + Nitrite (as N)		EC235.N+N/V Δ	0.0050	mg/L	2.74			
Nitrite (as N)	14797-65-0 I	E235.NO2-L/V A	0.0010	mg/L	0.0051			
Nitrite (as NO2)	14797-65-0 I	EC235.NO2A/ VA	0.0030	mg/L	0.0167			
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	0.0092			
Phosphorus, total	7723-14-0		0.0020	mg/L	0.0202			
Sulfate (as SO4)		E235.SO4/VA	0.30	mg/L	138			
Organic / Inorganic Carbon								
Carbon, total organic [TOC]		E355-L/CG	0.50	mg/L	4.77			
Total Metals								
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0552			
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00405			
-			-					•

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Stantec Consulting Ltd. 123515016 Client

Project

Sub-Matrix: Water		Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)				1-019	1-022	1-023	
		Client sampling date / time		12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400658-006	YL2400658-007	YL2400658-008	
				Result	Result	Result	
Total Metals							
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00410			
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0316			
Beryllium, total	7440-41-7 E420/VA	0.000020	mg/L	<0.000020			
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050			
Boron, total	7440-42-8 E420/VA	0.010	mg/L	0.011			
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	0.0000202			
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	119			
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010			
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050			
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.00042			
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00204			
Iron, total	7439-89-6 E420/VA	0.010	mg/L	0.224			
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	0.000180			
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0018			
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	11.1			
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.0608			
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050			
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.00473			
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.00301			
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050			
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	2.04			
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00111			
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.00195			
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	5.18			
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010			
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	3.75			
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.367			
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	51.1			
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020			
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000010			
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Stantec Consulting Ltd. 123515016 Client

Project



Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)				1-019	1-022	1-023	
		Client sampling date / time		12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400658-006	YL2400658-007	YL2400658-008	
				Result	Result	Result	
Total Metals							
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00010			
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	0.00041			
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	0.00220			
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010			
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.00346			
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050			
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	0.0083			
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020			
Dissolved Metals							
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	111			
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	10.9			
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	2.03			
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	3.30			
Dissolved metals filtration location	EP421/VA	-	-	Field			
Volatile Organic Compounds [BTEXS+MTBE]							
Benzene	71-43-2 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	
Toluene	108-88-3 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	
Xylene, m+p-	179601-23-1 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	
Xylene, o-	95-47-6 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	
Xylenes, total	1330-20-7 E611A/CG	0.75	μg/L	<0.75	<0.75	<0.75	
BTEX, total	E611A/CG	1.2	μg/L	<1.2	<1.2	<1.2	
Hydrocarbons							
F1 (C6-C10)	E581.F1/CG	100	μg/L	<100	<100	<100	
F1-BTEX	EC580/CG	100	μg/L	<100	<100	<100	
F2 (C10-C16)	E601/CG	100	μg/L	<100	<100	<100	
F3 (C16-C34)	E601/CG	250	μg/L	<250	<250	<250	
F4 (C34-C50)	E601/CG	250	μg/L	<250	<250	<250	
Hydrocarbons, total (C6-C50)	n/a EC581/CG	400	μg/L	<400	<400	<400	
Hydrocarbons Surrogates							
•							

Page : 11 of 11 Work Order : YL2400658

Client : Stantec Consulting Ltd.

Project : 123515016



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					1-019	1-022	1-023	
			Client sampling date / time		12-Jun-2024 00:00	12-Jun-2024 00:00	12-Jun-2024 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400658-006	YL2400658-007	YL2400658-008	
					Result	Result	Result	
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	85.7	87.5	84.6	
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	87.9	126	121	
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	95.7	76.2	75.2	
Difluorobenzene, 1,4-	540-36-3 E	611A/CG	1.0	%	103	94.4	93.5	

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : **YL2400658** Page : 1 of 22

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address :4910 53 Street Address :314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 : 1 867 445 7143

 Project
 : 123515016
 Date Samples Received
 : 13-Jun-2024 11:00

PO : ---- Issue Date : 20-Jun-2024 16:57

C-O-C number : ---Sampler : ---Site :

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received :8
No. of samples analysed :8

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

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.

Page : 3 of 22 Work Order : YL2400658

Client : Stantec Consulting Ltd.

Project : 123515016

Analyte Group: Analytical Method

Anions and Nutrients : Chloride in Water by IC

HDPE

GLG-2024-00001-001

Container / Client Sample ID(s)

Matrix: Water



Eval

Evaluation: **x** = Holding time exceedance; ✓ = Within Holding Time

Analysis Date

18-Jun-2024

Analysis

Holding Times

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.

Sampling Date

Method

E235.CI

Extraction / Preparation

days

28 days 6 days

18-Jun-2024

Holding Times

Eval

Preparation

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.

Container / Cheft Sample ID(s)			Preparation	Holairig	g rimes	⊏vai	Arialysis Dale	Понин	Times	Evai
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00001-001	E298	12-Jun-2024	18-Jun-2024	28 days	7 days	1	18-Jun-2024	28 days	7 days	1
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00001-002	E298	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00001-003	E298	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00001-004	E298	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00001-006	E298	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00001-019	E298	12-Jun-2024	18-Jun-2024	28	7 days	✓	18-Jun-2024	28 days	7 days	✓

12-Jun-2024

28 days 6 days

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Client : Stantec Consulting Ltd.



Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-002	E235.CI	12-Jun-2024	18-Jun-2024	28 days	6 days	✓	18-Jun-2024	28 days	6 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-003	E235.CI	12-Jun-2024	18-Jun-2024	28 days	6 days	✓	18-Jun-2024	28 days	6 days	√
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-004	E235.CI	12-Jun-2024	18-Jun-2024	28 days	6 days	✓	18-Jun-2024	28 days	6 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-006	E235.CI	12-Jun-2024	18-Jun-2024	28 days	6 days	✓	18-Jun-2024	28 days	6 days	✓
nions and Nutrients : Chloride in Water by IC				,						
HDPE GLG-2024-00001-019	E235.CI	12-Jun-2024	18-Jun-2024	28 days	6 days	✓	18-Jun-2024	28 days	6 days	✓
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-001	E378-U	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	19-Jun-2024	3 days	7 days	* EHT
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-002	E378-U	12-Jun-2024	18-Jun-2024	3 days	6 days	x EHT	19-Jun-2024	3 days	7 days	x EHT
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-003	E378-U	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	19-Jun-2024	3 days	7 days	x EHT
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-004	E378-U	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	19-Jun-2024	3 days	7 days	x EHT

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Client : Stantec Consulting Ltd.



Matrix: Water		1 - " 1				/aluation: ≭ =	Holding time exce			Holding Tir
Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	g Times Actual	Eval
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra T	race Level 0.001 mg/L)									
HDPE GLG-2024-00001-006	E378-U	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	19-Jun-2024	3 days	7 days	* EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra T	race Level 0.001 mg/L)									
HDPE GLG-2024-00001-019	E378-U	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	19-Jun-2024	3 days	7 days	≭ EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-001	E235.NO3-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-002	E235.NO3-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	≭ EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-003	E235.NO3-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-004	E235.NO3-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-006	E235.NO3-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	≭ EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-019	E235.NO3-L	12-Jun-2024	18-Jun-2024	3 days	6 days	x EHT	18-Jun-2024	3 days	6 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-001	E235.NO2-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	x EHT

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Client : Stantec Consulting Ltd.



Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)		, ,	Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual		,	Rec	Actual	
nions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-002	E235.NO2-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	≭ EH1
nions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-003	E235.NO2-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	# EHT
nions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-004	E235.NO2-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	x EHT
nions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-006	E235.NO2-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	≭ EH1
nions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-019	E235.NO2-L	12-Jun-2024	18-Jun-2024	3 days	6 days	* EHT	18-Jun-2024	3 days	6 days	x EHT
nions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00001-001	E235.SO4	12-Jun-2024	18-Jun-2024	28 days	6 days	✓	18-Jun-2024	28 days	6 days	✓
nions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00001-002	E235.SO4	12-Jun-2024	18-Jun-2024	28 days	6 days	✓	18-Jun-2024	28 days	6 days	✓
nions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00001-003	E235.SO4	12-Jun-2024	18-Jun-2024	28 days	6 days	✓	18-Jun-2024	28 days	6 days	✓
nions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00001-004	E235.SO4	12-Jun-2024	18-Jun-2024	28 days	6 days	1	18-Jun-2024	28 days	6 days	✓

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Client : Stantec Consulting Ltd.

Anions and Nutrients: Total Phosphorus by Colourimetry (0.002 mg/L)

Dissolved Metals: Dissolved Metals in Water by CRC ICPMS

Amber glass total (sulfuric acid)

HDPE - dissolved (lab preserved)

GLG-2024-00001-019

GLG-2024-00001-001

Project : 123515016

Matrix: Water



Evaluation: **x** = Holding time exceedance; ✓ = Within Holding Time

Extraction / Preparation Analysis Analyte Group: Analytical Method Method Sampling Date Container / Client Sample ID(s) **Holding Times** Preparation Holding Times Eval Analysis Date Eval Rec Actual Rec Actual Date Anions and Nutrients : Sulfate in Water by IC HDPE E235.SO4 12-Jun-2024 1 ✓ GLG-2024-00001-006 18-Jun-2024 6 days 18-Jun-2024 28 days 6 days 28 days Anions and Nutrients : Sulfate in Water by IC **HDPE** GLG-2024-00001-019 E235.SO4 12-Jun-2024 18-Jun-2024 28 6 days 1 18-Jun-2024 28 days 6 days 1 days Anions and Nutrients: Total Phosphorus by Colourimetry (0.002 mg/L) Amber glass total (sulfuric acid) GLG-2024-00001-001 E372-U 12-Jun-2024 14-Jun-2024 3 days 1 19-Jun-2024 28 days 7 days 1 28 davs Anions and Nutrients: Total Phosphorus by Colourimetry (0.002 mg/L) Amber glass total (sulfuric acid) E372-U 1 GLG-2024-00001-002 12-Jun-2024 14-Jun-2024 28 3 days 19-Jun-2024 28 days 7 days 1 days Anions and Nutrients: Total Phosphorus by Colourimetry (0.002 mg/L) Amber glass total (sulfuric acid) GLG-2024-00001-003 E372-U 12-Jun-2024 14-Jun-2024 3 days 1 19-Jun-2024 ✓ 28 days 7 days 28 days Anions and Nutrients: Total Phosphorus by Colourimetry (0.002 mg/L) Amber glass total (sulfuric acid) E372-U 12-Jun-2024 1 1 GLG-2024-00001-004 14-Jun-2024 28 3 days 19-Jun-2024 28 days 7 days days Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L) Amber glass total (sulfuric acid) GLG-2024-00001-006 E372-U 12-Jun-2024 14-Jun-2024 3 days 19-Jun-2024 28 days 7 days ✓

12-Jun-2024

12-Jun-2024

E372-U

E421

28 days

28

days

180

days

3 days

7 days

14-Jun-2024

18-Jun-2024

1

1

19-Jun-2024

19-Jun-2024

28 days 7 days

180

days

8 days

1

1

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Client : Stantec Consulting Ltd.



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

Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS				_						
HDPE - dissolved (lab preserved) GLG-2024-00001-002	E421	12-Jun-2024	18-Jun-2024	180 days	7 days	✓	19-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00001-003	E421	12-Jun-2024	18-Jun-2024	180 days	7 days	4	19-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00001-004	E421	12-Jun-2024	18-Jun-2024	180 days	7 days	✓	19-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00001-006	E421	12-Jun-2024	18-Jun-2024	180 days	7 days	✓	19-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00001-019	E421	12-Jun-2024	18-Jun-2024	180 days	7 days	✓	19-Jun-2024	180 days	8 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00001-001	E581.F1	12-Jun-2024	15-Jun-2024	14 days	4 days	✓	15-Jun-2024	14 days	4 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00001-002	E581.F1	12-Jun-2024	15-Jun-2024	14 days	4 days	√	15-Jun-2024	14 days	4 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00001-003	E581.F1	12-Jun-2024	15-Jun-2024	14 days	4 days	✓	15-Jun-2024	14 days	4 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00001-004	E581.F1	12-Jun-2024	15-Jun-2024	14 days	4 days	✓	15-Jun-2024	14 days	4 days	✓

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Client : Stantec Consulting Ltd.

Project : 123515016



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

Matrix: Water						/aluation. ^ –	× = Holding time exceedance; ✓ = Within Holding				
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation			Analys	sis		
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval	
			Date	Rec	Actual			Rec	Actual		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)											
GLG-2024-00001-006	E581.F1	12-Jun-2024	15-Jun-2024	14	4 days	✓	15-Jun-2024	14 days	4 days	✓	
				days							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)											
GLG-2024-00001-019	E581.F1	12-Jun-2024	15-Jun-2024	14	4 days	✓	15-Jun-2024	14 days	4 days	✓	
				days							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)											
GLG-2024-00001-022	E581.F1	12-Jun-2024	16-Jun-2024	14	4 days	✓	16-Jun-2024	14 days	4 days	✓	
				days							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)											
GLG-2024-00001-023	E581.F1	12-Jun-2024	16-Jun-2024	14	4 days	1	16-Jun-2024	14 days	4 days	✓	
				days				,			
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID				,							
Amber glass/Teflon lined cap (sodium bisulfate)				<u> </u>			<u> </u>				
GLG-2024-00001-001	E601	12-Jun-2024	19-Jun-2024	14	7 days	✓	19-Jun-2024	40 days	0 days	✓	
				days				,			
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID				,							
Amber glass/Teflon lined cap (sodium bisulfate)							I				
GLG-2024-00001-002	E601	12-Jun-2024	19-Jun-2024	14	7 days	✓	19-Jun-2024	40 days	0 days	✓	
010 1011 00001 001				days	, -			,-	J, -		
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID				,-							
Amber glass/Teflon lined cap (sodium bisulfate)							I				
GLG-2024-00001-003	E601	12-Jun-2024	19-Jun-2024	14	7 days	✓	19-Jun-2024	40 days	0 days	✓	
020 2021 00001 000		12 04.1 202 1	.0 04 202 .	days	,	·		.o dayo	o days		
Hadroneshauer COME DUC- FO F4 has CO FID				dayo							
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate)				T T			I				
GLG-2024-00001-004	E601	12-Jun-2024	19-Jun-2024	14	7 days	√	19-Jun-2024	40 days	0 days	√	
3E3-2024-00001-004	2001	72-0411-2024	10-0411-2024	days	, days	,	10-0411-2024	10 days	Judys	•	
				uays							
Hydrocarbons: CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate)	E601	12-Jun-2024	19-Jun-2024	4.4	7 days	✓	19-Jun-2024	40 days	0 days	✓	
GLG-2024-00001-006	E001	12-5011-2024	19-Juil-2024	14	r uays	, ,	19-Jull-2024	+o days	o uays	▼	
				days							

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Client : Stantec Consulting Ltd.



Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)		, ,	Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
. ,,			Date	Rec	Actual		/ "naiyolo Dato	Rec	Actual	
lydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-019	E601	12-Jun-2024	19-Jun-2024	14 days	7 days	✓	19-Jun-2024	40 days	0 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID				uayo						
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-022	E601	12-Jun-2024	19-Jun-2024	14 days	7 days	✓	19-Jun-2024	40 days	0 days	✓
lydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-023	E601	12-Jun-2024	19-Jun-2024	14 days	7 days	✓	19-Jun-2024	40 days	0 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Com	bustion (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00001-001	E355-L	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Com	bustion (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00001-002	E355-L	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Com	bustion (Low Level)			uuyo						
Amber glass total (sulfuric acid)										
GLG-2024-00001-003	E355-L	12-Jun-2024	18-Jun-2024	28	7 days	✓	18-Jun-2024	28 days	7 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Com	bustion (Low Level)									
Amber glass total (sulfuric acid)						,				,
GLG-2024-00001-004	E355-L	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Com	ibustion (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00001-006	E355-L	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓
rganic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Com	bustion (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00001-019	E355-L	12-Jun-2024	18-Jun-2024	28 days	7 days	✓	18-Jun-2024	28 days	7 days	✓

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Client : Stantec Consulting Ltd.

Project : 123515016



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

					- Holding time exceedance, V - Within Holding					
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00001-001	E290	12-Jun-2024	18-Jun-2024	14	6 days	✓	18-Jun-2024	14 days	7 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE	T									
GLG-2024-00001-002	E290	12-Jun-2024	18-Jun-2024	14	6 days	✓	18-Jun-2024	14 days	7 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE							<u> </u>			
GLG-2024-00001-003	E290	12-Jun-2024	18-Jun-2024	14	6 days	✓	18-Jun-2024	14 days	7 days	✓
				days						
Physical Tests : Alkalinity Species by Titration				,						
HDPE							I			
GLG-2024-00001-004	E290	12-Jun-2024	18-Jun-2024	14	6 days	1	18-Jun-2024	14 days	7 days	✓
020 2021 00001 001			.0 04 202 .	days	o dayo		10 04.1. 2021	aayo	. aayo	
Dhoulest Tasks Albeliate On size by Titustics				dayo						
Physical Tests : Alkalinity Species by Titration HDPE				T T			<u> </u>	I		
GLG-2024-00001-006	E290	12-Jun-2024	18-Jun-2024	14	6 days	√	18-Jun-2024	14 days	7 days	✓
GLG-2024-00001-000	L230	12-0411-2024	10-3411-2024	days	0 days	,	10-3411-2024	14 days	1 days	•
				uays						
Physical Tests : Alkalinity Species by Titration				T T				I		
HDPE	E290	12-Jun-2024	18-Jun-2024		0 4	✓	18-Jun-2024	4.4	7 -1	✓
GLG-2024-00001-019	E290	12-Jun-2024	18-Jun-2024	14	6 days	•	18-Jun-2024	14 days	7 days	•
				days						
Physical Tests : Conductivity in Water										
HDPE	F100	40 1 000 1	40 1 005				40 1 000;	00.1		,
GLG-2024-00001-001	E100	12-Jun-2024	18-Jun-2024	28	6 days	✓	18-Jun-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00001-002	E100	12-Jun-2024	18-Jun-2024	28	6 days	✓	18-Jun-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00001-003	E100	12-Jun-2024	18-Jun-2024	28	6 days	✓	18-Jun-2024	28 days	7 days	✓
	1	1		days			1	1		

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Client : Stantec Consulting Ltd.



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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation		J	Analysis		
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-004	E100	12-Jun-2024	18-Jun-2024	28 days	6 days	√	18-Jun-2024	28 days	7 days	√
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-006	E100	12-Jun-2024	18-Jun-2024	28 days	6 days	4	18-Jun-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-019	E100	12-Jun-2024	18-Jun-2024	28 days	6 days	√	18-Jun-2024	28 days	7 days	✓
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-001	E108	12-Jun-2024	18-Jun-2024	0.25 hrs	151 hrs	* EHTR-FM	18-Jun-2024	0.25 hrs	156 hrs	# EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-002	E108	12-Jun-2024	18-Jun-2024	0.25 hrs	151 hrs	* EHTR-FM	18-Jun-2024	0.25 hrs	156 hrs	* EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-003	E108	12-Jun-2024	18-Jun-2024	0.25 hrs	151 hrs	≭ EHTR-FM	18-Jun-2024	0.25 hrs	156 hrs	≴ EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-004	E108	12-Jun-2024	18-Jun-2024	0.25 hrs	151 hrs	# EHTR-FM	18-Jun-2024	0.25 hrs	156 hrs	# EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-006	E108	12-Jun-2024	18-Jun-2024	0.25 hrs	151 hrs	* EHTR-FM	18-Jun-2024	0.25 hrs	156 hrs	* EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-019	E108	12-Jun-2024	18-Jun-2024	0.25 hrs	151 hrs	# EHTR-FM	18-Jun-2024	0.25 hrs	156 hrs	* EHTR-FM

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Client : Stantec Consulting Ltd.

Project : 123515016



Matrix: Water Evaluation: **x** = Holding time exceedance ; ✓ = Within Holding Time Analyte Group : Analytical Method Extraction / Preparation Analysis Method Sampling Date Container / Client Sample ID(s) **Holding Times** Preparation Holding Times Eval Analysis Date Eval Rec Actual Rec Actual Date Physical Tests: TDS by Gravimetry (Low Level) HDPE 12-Jun-2024 E162-L 1 18-Jun-2024 7 days 7 days GLG-2024-00001-001 Physical Tests: TDS by Gravimetry (Low Level) **HDPE** GLG-2024-00001-002 E162-L 12-Jun-2024 18-Jun-2024 7 days 7 days 1 Physical Tests : TDS by Gravimetry (Low Level) HDPE E162-L 12-Jun-2024 18-Jun-2024 7 days 1 GLG-2024-00001-003 7 days Physical Tests: TDS by Gravimetry (Low Level) HDPE E162-L 12-Jun-2024 ✓ GLG-2024-00001-004 18-Jun-2024 7 days 7 days Physical Tests: TDS by Gravimetry (Low Level) **HDPE** E162-L 12-Jun-2024 18-Jun-2024 1 GLG-2024-00001-006 7 days 7 days Physical Tests: TDS by Gravimetry (Low Level) HDPE E162-L 12-Jun-2024 1 GLG-2024-00001-019 18-Jun-2024 7 days 7 days ----Physical Tests: TSS by Gravimetry (Low Level) HDPE [TSS-WB] GLG-2024-00001-001 E160-L 12-Jun-2024 18-Jun-2024 1 7 days 7 days Physical Tests : TSS by Gravimetry (Low Level) HDPE [TSS-WB] ✓ GLG-2024-00001-002 E160-L 12-Jun-2024 18-Jun-2024 7 days 7 days Physical Tests: TSS by Gravimetry (Low Level) HDPE [TSS-WB] E160-L 12-Jun-2024 18-Jun-2024 7 days 1 GLG-2024-00001-003 7 days

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Client : Stantec Consulting Ltd.



Matrix: Water					Εν	/aluation: × =	Holding time exce	edance ;	✓ = Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / P	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holdin	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00001-004	E160-L	12-Jun-2024					18-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00001-006	E160-L	12-Jun-2024					18-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00001-019	E160-L	12-Jun-2024					18-Jun-2024	7 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved)							I			
GLG-2024-00001-001	E508	12-Jun-2024	19-Jun-2024	0 hrs	180 hrs	×	19-Jun-2024	0 hrs	180 hrs	*
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved)					<u> </u>		<u> </u>			
GLG-2024-00001-002	E508	12-Jun-2024	19-Jun-2024	0 hrs	180 hrs	×	19-Jun-2024	0 hrs	180 hrs	3c
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved)										
GLG-2024-00001-003	E508	12-Jun-2024	19-Jun-2024	0 hrs	180 hrs	×	19-Jun-2024	0 hrs	180 hrs	×
320 2024 00001 000		.2 04 202 .	10 0411 2021	0 1110	100 1110	UCP	10 0411 2021	0 1110	1001110	UCP
T (M () T () M () OVA ()						00.				
Total Metals : Total Mercury in Water by CVAAS				I						
HDPE - total (lab preserved) GLG-2024-00001-004	E508	12-Jun-2024	19-Jun-2024	0 hrs	180 hrs	×	19-Jun-2024	0 hrs	180 hrs	æ
GLG-2024-00001-004	L300	12-0411-2024	19-5411-2024	01113	100 1113	UCP	13-3411-2024	01113	100 1113	UCP
						00.				001
Total Metals : Total Mercury in Water by CVAAS							I			
HDPE - total (lab preserved) GLG-2024-00001-006	E508	12-Jun-2024	19-Jun-2024	0 hrs	180 hrs	*	19-Jun-2024	0 hrs	180 hrs	
GLG-2024-00001-000	L300	12-3011-2024	19-3411-2024	01115	100 1115	UCP	19-3011-2024	01115	100 1115	UCP
				<u> </u>		UCF				UCF
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved)	E500	10 lu= 0004	40 hii 0004	0.1	400 1	,	40 1 2001	0.1	400 1	4-
GLG-2024-00001-019	E508	12-Jun-2024	19-Jun-2024	0 hrs	180 hrs	#	19-Jun-2024	0 hrs	180 hrs	*
						UCP				UCP

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

Analyte Group : Analytical Method	Method	Sampling Date	Extraction / Preparation			J	Analys	is		
Container / Client Sample ID(s)			Preparation Holding Ti		g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GLG-2024-00001-001	E420	12-Jun-2024	18-Jun-2024	180 days	6 days	1	18-Jun-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GLG-2024-00001-002	E420	12-Jun-2024	18-Jun-2024	180 days	6 days	4	18-Jun-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GLG-2024-00001-003	E420	12-Jun-2024	18-Jun-2024	180 days	6 days	✓	18-Jun-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GLG-2024-00001-004	E420	12-Jun-2024	18-Jun-2024	180 days	6 days	1	18-Jun-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GLG-2024-00001-006	E420	12-Jun-2024	18-Jun-2024	180 days	6 days	✓	18-Jun-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GLG-2024-00001-019	E420	12-Jun-2024	18-Jun-2024	180 days	6 days	✓	18-Jun-2024	180 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) GLG-2024-00001-001	E611A	12-Jun-2024	15-Jun-2024	14 days	4 days	✓	15-Jun-2024	14 days	4 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) GLG-2024-00001-002	E611A	12-Jun-2024	15-Jun-2024	14 days	4 days	✓	15-Jun-2024	14 days	4 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) GLG-2024-00001-003	E611A	12-Jun-2024	15-Jun-2024	14 days	4 days	✓	15-Jun-2024	14 days	4 days	✓

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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation		Analysis			
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00001-004	E611A	12-Jun-2024	15-Jun-2024	14	4 days	✓	15-Jun-2024	14 days	4 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00001-006	E611A	12-Jun-2024	15-Jun-2024	14	4 days	✓	15-Jun-2024	14 days	4 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										,
GLG-2024-00001-019	E611A	12-Jun-2024	15-Jun-2024	14	4 days	✓	15-Jun-2024	14 days	4 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)						,				,
GLG-2024-00001-022	E611A	12-Jun-2024	16-Jun-2024	14	4 days	✓	16-Jun-2024	14 days	4 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00001-023	E611A	12-Jun-2024	16-Jun-2024	14	4 days	✓	16-Jun-2024	14 days	4 days	✓
				days						

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).

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

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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.

Quality Control Sample Type			C	ount		Frequency (%)	<u>)</u>
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1498964	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1500857	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1495905	2	31	6.4	5.0	√
CCME PHC - F1 by Headspace GC-FID	E581.F1	1495906	2	12	16.6	5.0	✓
Chloride in Water by IC	E235.CI	1498967	1	19	5.2	5.0	√
Conductivity in Water	E100	1498965	1	20	5.0	5.0	√
Dissolved Metals in Water by CRC ICPMS	E421	1498545	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1498972	1	19	5.2	5.0	√
Nitrate in Water by IC (Low Level)	E235.NO3-L	1498969	1	19	5.2	5.0	√
Nitrite in Water by IC (Low Level)	E235.NO2-L	1498970	1	19	5.2	5.0	√
pH by Meter	E108	1498963	1	20	5.0	5.0	√
Sulfate in Water by IC	E235.SO4	1498971	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1500788	1	6	16.6	5.0	√
Total Mercury in Water by CVAAS	E508	1502049	1	16	6.2	5.0	√
Total Metals in Water by CRC ICPMS	E420	1498144	1	19	5.2	5.0	√
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1500335	1	19	5.2	5.0	√
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1495242	1	13	7.6	5.0	√
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1498964	1	19	5.2	5.0	1
Ammonia by Fluorescence	E298	1500857	1	20	5.0	5.0	<u> </u>
BTEX by Headspace GC-MS	E611A	1495905	2	31	6.4	5.0	<u>√</u>
CCME PHC - F1 by Headspace GC-FID	E581.F1	1495906	2	12	16.6	5.0	<u>√</u>
CCME PHCs - F2-F4 by GC-FID	E601	1500290	1	10	10.0	5.0	√
Chloride in Water by IC	E235.CI	1498967	1	19	5.2	5.0	<u>√</u>
Conductivity in Water	E100	1498965	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1498545	1	19	5.2	5.0	√
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1498972	1	19	5.2	5.0	√
Nitrate in Water by IC (Low Level)	E235.NO3-L	1498969	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1498970	1	19	5.2	5.0	√
pH by Meter	E108	1498963	1	20	5.0	5.0	√
Sulfate in Water by IC	E235.SO4	1498971	1	20	5.0	5.0	<u>√</u>
TDS by Gravimetry (Low Level)	E162-L	1500788	1	6	16.6	5.0	√
Total Mercury in Water by CVAAS	E508	1502049	1	16	6.2	5.0	<u>√</u>
Total Metals in Water by CRC ICPMS	E420	1498144	1	19	5.2	5.0	<u> </u>
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1500335	1	19	5.2	5.0	<u>√</u>
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1495242	1	13	7.6	5.0	

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Matrix: Water	Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.										
Quality Control Sample Type							quency (%)				
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation				
Laboratory Control Samples (LCS) - Continued											
TSS by Gravimetry (Low Level)	E160-L	1500790	1	6	16.6	5.0	✓				
Method Blanks (MB)											
Alkalinity Species by Titration	E290	1498964	1	19	5.2	5.0	✓				
Ammonia by Fluorescence	E298	1500857	1	20	5.0	5.0	✓				
BTEX by Headspace GC-MS	E611A	1495905	2	31	6.4	5.0	✓				
CCME PHC - F1 by Headspace GC-FID	E581.F1	1495906	2	12	16.6	5.0	✓				
CCME PHCs - F2-F4 by GC-FID	E601	1500290	1	10	10.0	5.0	✓				
Chloride in Water by IC	E235.CI	1498967	1	19	5.2	5.0	✓				
Conductivity in Water	E100	1498965	1	20	5.0	5.0	✓				
Dissolved Metals in Water by CRC ICPMS	E421	1498545	1	19	5.2	5.0	✓				
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1498972	1	19	5.2	5.0	✓				
Nitrate in Water by IC (Low Level)	E235.NO3-L	1498969	1	19	5.2	5.0	✓				
Nitrite in Water by IC (Low Level)	E235.NO2-L	1498970	1	19	5.2	5.0	✓				
Sulfate in Water by IC	E235.SO4	1498971	1	20	5.0	5.0	✓				
TDS by Gravimetry (Low Level)	E162-L	1500788	1	6	16.6	5.0	✓				
Total Mercury in Water by CVAAS	E508	1502049	1	16	6.2	5.0	✓				
Total Metals in Water by CRC ICPMS	E420	1498144	1	19	5.2	5.0	✓				
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1500335	1	19	5.2	5.0	✓				
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1495242	1	13	7.6	5.0	✓				
TSS by Gravimetry (Low Level)	E160-L	1500790	1	6	16.6	5.0	✓				
Matrix Spikes (MS)											
Ammonia by Fluorescence	E298	1500857	1	20	5.0	5.0	✓				
BTEX by Headspace GC-MS	E611A	1495905	2	31	6.4	5.0	✓				
Chloride in Water by IC	E235.CI	1498967	1	19	5.2	5.0	✓				
Dissolved Metals in Water by CRC ICPMS	E421	1498545	1	19	5.2	5.0	✓				
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1498972	1	19	5.2	5.0	✓				
Nitrate in Water by IC (Low Level)	E235.NO3-L	1498969	1	19	5.2	5.0	✓				
Nitrite in Water by IC (Low Level)	E235.NO2-L	1498970	1	19	5.2	5.0	✓				
Sulfate in Water by IC	E235.SO4	1498971	1	20	5.0	5.0	✓				
Total Mercury in Water by CVAAS	E508	1502049	1	16	6.2	5.0	✓				
Total Metals in Water by CRC ICPMS	E420	1498144	1	19	5.2	5.0	✓				
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1500335	1	19	5.2	5.0	✓				
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1495242	1	13	7.6	5.0	√				

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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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Vancouver			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Vancouver			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Vancouver			brackish waters) may produce a positive bias by this method. Alternate analysis
				methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			
Chloride in Water by IC	, , , , , , , , , , , , , , , , , , , ,	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.		
	ALS Environmental -			
	Vancouver			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Sulfate in Water by IC E235.SO4 ALS Environmen	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
		Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Vancouver			

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Calgary	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Calgary	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Calgary	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
CCME PHC - F1 by Headspace GC-FID	E581.F1 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
	ALS Environmental -		1	Analytical mathada for CCME Datalayas Hydrogerhana (DUCs) are validated to comply
	Calgary			Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless
	Caigary			qualified, all required quality control criteria of the CCME PHC method have been met,
				including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS.
			, ,	Samples are prepared in headspace vials and are heated and agitated on the
	ALS Environmental -			headspace autosampler, causing VOCs to partition between the aqueous phase and
	Calgary			the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100	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
	ALS Environmental -			to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially
	Vancouver			calculated from dissolved Calcium and Magnesium concentrations, because it is a
				property of water due to dissolved divalent cations.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as
				N) + Nitrate (as N).
	ALS Environmental -			
Nitrite (as N) converted to Nitrite (as NO2)	Vancouver EC235.NO2A	Water	Calculation	Nitrite by IC measured as N is converted to the NO2 form by calculation.
Nume (as IV) converted to Munic (as IVO2)	EC235.NOZA	vvatei	Calculation	Militie by 10 measured as Wis convened to the Woz 10mm by calculation.
	ALS Environmental -			
	Vancouver			
Nitrate (as N) converted to Nitrate (as NO3)	EC235.NO3A	Water	Calculation	Nitrate by IC measured as N is converted to the NO3 form by calculation.
	ALS Environmental -			
	Vancouver			
F1-BTEX	EC580	Water	CCME PHC in Soil - Tier	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene,
			1	ethylbenzene and xylenes (BTEX).
	ALS Environmental -			
0 54 (- 54 (00.050)	Calgary	NA / - 4		
Sum F1 to F4 (C6-C50)	EC581	Water	CCME PHC in Soil - Tier	
	ALS Environmental -		1	F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to
	Calgary			overlap with other fractions.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALC Empire and the			
	ALS Environmental -			
Preparation for Total Organic Carbon by	Calgary EP355	Water		Preparation for Total Organic Carbon by Combustion
Combustion	EF300	v v atei		Traparation for Total Organio Outborn by Combustion
Compaction	ALS Environmental -			
	Calgary			
	- 5 ,		1	1

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Client : Stantec Consulting Ltd.



Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental - Calgary			
Dissolved Metals Water Filtration	EP421	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental - Vancouver			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the
	ALS Environmental - Calgary			headspace autosampler. An aliquot of the headspace is then injected into the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are
				extracted using a hexane liquid-liquid extraction.
	ALS Environmental -			
	Calgary			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order Page :YL2400658 : 1 of 14

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

> **Account Manager** : Oliver Gregg : Natalie Normandeau :4910 53 Street

Address :314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone :1 867 445 7143

Date Samples Received : 13-Jun-2024 11:00

Date Analysis Commenced : 14-Jun-2024 Issue Date : 20-Jun-2024 16:57

Labaratan Danartan

Project : 123515016 PO

C-O-C number Sampler

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received : 8 No. of samples analysed : 8

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

Contact

Address

Telephone

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	
Cynthia Bauer	Organic Supervisor	Calgary Organics, Calgary, Alberta	
Elke Tabora	Lab Analyst	Calgary Inorganics, Calgary, Alberta	
Erin Sanchez		Vancouver Metals, Burnaby, British Columbia	
Hannah Phung	Lab Assistant	Calgary Inorganics, Calgary, Alberta	
Harpreet Chawla	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta	
Jyotsnarani Devi	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia	
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Shirley Li	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta	

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Client : Stantec Consulting Ltd.

Project : 123515016



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.

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Client : Stantec Consulting Ltd.

Project : 123515016



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							Labora	tory Duplicate (D	UP) 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: 1498963)										
FJ2401682-003	Anonymous	pH		E108	0.10	pH units	8.36	8.36	0.00%	4%	
Physical Tests (QC	Lot: 1498964)										
FJ2401682-003	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	121	121	0.248%	200%	
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	3.0	3.0	0.00%	200%	
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, phenolphthalein (as CaCO3)		E290	1.0	mg/L	1.5	1.5	0	Diff <2x LOR	
		Alkalinity, total (as CaCO3)		E290	1.0	mg/L	124	124	0.242%	20%	
Physical Tests (QC	Lot: 1498965)										
FJ2401682-003	Anonymous	Conductivity		E100	2.0	μS/cm	275	277	0.725%	10%	
Physical Tests (QC	Lot: 1500788)										
YL2400658-001	GLG-2024-00001-001	Solids, total dissolved [TDS]		E162-L	15.0	mg/L	2440	2400	1.86%	20%	
Anions and Nutrien	ts (QC Lot: 1495242)										
VA24B3608-005	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	<0.0020	<0.0020	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1498967)										
FJ2401682-001	Anonymous	Chloride	16887-00-6	E235.CI	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1498969)										
FJ2401682-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1498970)										
FJ2401682-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1498971)										
FJ2401682-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	15.1	15.2	0.645%	20%	
Anions and Nutrien	ts (QC Lot: 1498972)										
FJ2401682-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1500857)										
VA24B3793-009	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.125	mg/L	6.01	6.12	1.80%	20%	
Organic / Inorganic	Carbon (QC Lot: 15003	335)									
CG2408017-001	Anonymous	Carbon, total organic [TOC]		E355-L	0.50	mg/L	1.90	2.20	0.31	Diff <2x LOR	
Total Metals (QC Lo	ot: 1498144)										
FJ2401672-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.313	0.319	1.94%	20%	

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water	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	Qualifie
Total Metals (QC Lo	ot: 1498144) - continued										
FJ2401672-001	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00935	0.0100	7.13%	20%	
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00052	0.00051	0.00001	Diff <2x LOR	
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.134	0.138	2.75%	20%	
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.000031	0.000041	0.000010	Diff <2x LOR	
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	0.000083	0.000080	0.000004	Diff <2x LOR	
		Boron, total	7440-42-8	E420	0.010	mg/L	0.092	0.094	0.002	Diff <2x LOR	
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000872	0.0000889	1.96%	20%	
		Calcium, total	7440-70-2	E420	0.050	mg/L	85.1	82.7	2.83%	20%	
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000109	0.000111	1.70%	20%	
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00116	0.00170	0.00055	Diff <2x LOR	
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00064	0.00061	0.00003	Diff <2x LOR	
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00237	0.00235	0.00002	Diff <2x LOR	
		Iron, total	7439-89-6	E420	0.010	mg/L	0.485	0.519	6.88%	20%	
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000455	0.000466	0.000011	Diff <2x LOR	
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0199	0.0204	2.49%	20%	
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	25.7	25.1	2.06%	20%	
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.163	0.160	1.92%	20%	
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00396	0.00397	0.0958%	20%	
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00302	0.00302	0.000004	Diff <2x LOR	
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	0.056	0.006	Diff <2x LOR	
		Potassium, total	7440-09-7	E420	0.050	mg/L	4.20	4.23	0.722%	20%	
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00206	0.00203	1.62%	20%	
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000181	0.000142	0.000038	Diff <2x LOR	
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.52	6.40	14.7%	20%	
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000018	0.000018	0.0000001	Diff <2x LOR	
		Sodium, total	7440-23-5	E420	0.050	mg/L	29.4	29.1	0.831%	20%	
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.322	0.330	2.64%	20%	
		Sulfur, total	7704-34-9	E420	0.50	mg/L	18.0	17.8	0.762%	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	0.000019	0.000023	0.000004	Diff <2x LOR	
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	0.00010	0.000004	Diff <2x LOR	
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00023	0.00026	0.00004	Diff <2x LOR	
		Titanium, total	7440-32-6	E420	0.00360	mg/L	<0.00360	<0.00360	0	Diff <2x LOR	
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water							Labora	tory Duplicate (D	UP) 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 Lo	ot: 1498144) - continue										
FJ2401672-001	Anonymous	Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00231	0.00232	0.732%	20%	
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00186	0.00186	0.000001	Diff <2x LOR	
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0151	0.0151	0.00007	Diff <2x LOR	
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	
Total Metals (QC Lo	ot: 1502049)										
FJ2401699-017	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
Dissolved Metals (QC Lot: 1498545)										
VA24B3588-001	Anonymous	Calcium, dissolved	7440-70-2	E421	1.00	mg/L	685	684	0.154%	20%	
		Magnesium, dissolved	7439-95-4	E421	0.100	mg/L	210	203	3.26%	20%	
		Potassium, dissolved	7440-09-7	E421	1.00	mg/L	8.84	8.19	0.658	Diff <2x LOR	
		Sodium, dissolved	7440-23-5	E421	1.00	mg/L	30.9	27.7	10.9%	20%	
Volatile Organic Co	mpounds (QC Lot: 149	5905)									
VA24B3445-001	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Toluene	108-88-3	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	<0.40	<0.40	0	Diff <2x LOR	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	<0.30	<0.30	0	Diff <2x LOR	
Volatile Organic Co	mpounds (QC Lot: 149	6607)									
RG2400906-002	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Toluene	108-88-3	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	<0.40	<0.40	0	Diff <2x LOR	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	<0.30	<0.30	0	Diff <2x LOR	
Hydrocarbons (QC	Lot: 1495906)										
YL2400658-001	GLG-2024-00001-001	F1 (C6-C10)		E581.F1	100	μg/L	<100	<100	0	Diff <2x LOR	
Hydrocarbons (QC	Lot: 1496606)										
RG2400906-002	Anonymous	F1 (C6-C10)		E581.F1	100	μg/L	<100	<100	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

Project : 123515016



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

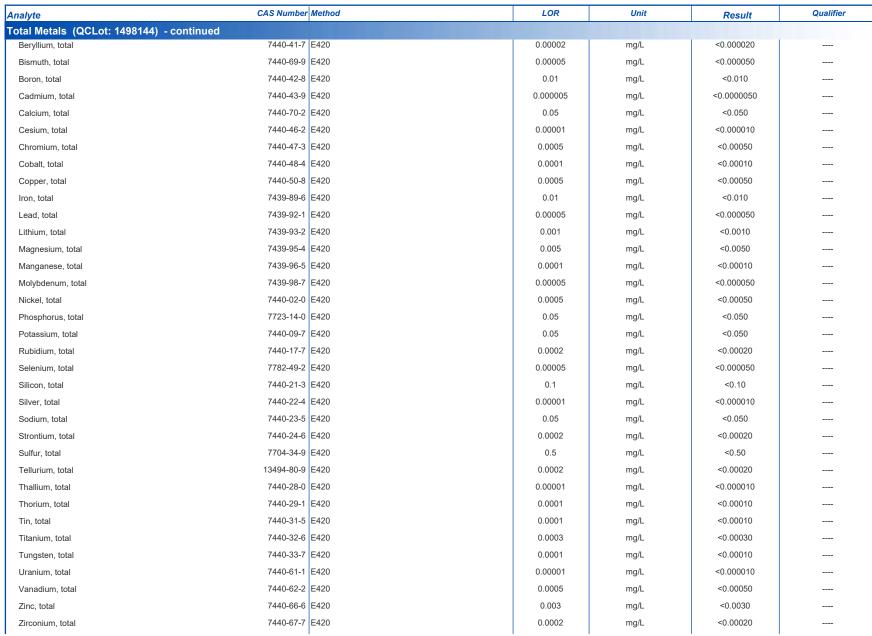
Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1498964)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
Physical Tests (QCLot: 1498965)					
Conductivity	E100	1	μS/cm	1.4	
Physical Tests (QCLot: 1500788)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
Physical Tests (QCLot: 1500790)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
Anions and Nutrients (QCLot: 1495242)					
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	<0.0020	
Anions and Nutrients (QCLot: 1498967)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
Anions and Nutrients (QCLot: 1498969)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
Anions and Nutrients (QCLot: 1498970)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1498971)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
nions and Nutrients (QCLot: 1498972)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
Anions and Nutrients (QCLot: 1500857)					
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	<0.0050	
Organic / Inorganic Carbon (QCLot: 1500	335)				
Carbon, total organic [TOC]	E355-L	0.5	mg/L	<0.50	
otal Metals (QCLot: 1498144)					
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	

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Client : Stantec Consulting Ltd.

Project : 123515016

Sub-Matrix: Water



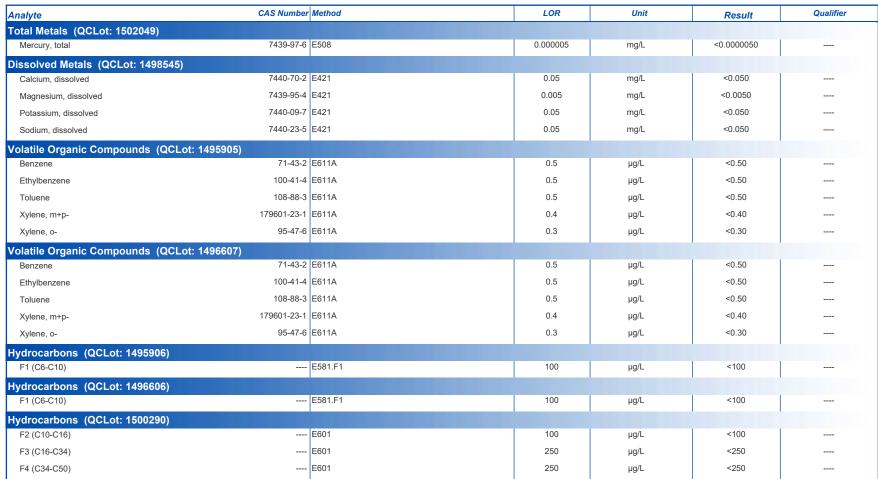


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Client : Stantec Consulting Ltd.

Project : 123515016

Sub-Matrix: Water





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Client : Stantec Consulting Ltd.

Project : 123515016



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 Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1498963)									
рН		E108		pH units	7 pH units	100	98.0	102	
Physical Tests (QCLot: 1498964)									
Alkalinity, phenolphthalein (as CaCO3)		E290	1	mg/L	229 mg/L	93.4	75.0	125	
Alkalinity, total (as CaCO3)		E290	1	mg/L	500 mg/L	108	85.0	115	
Physical Tests (QCLot: 1498965)									
Conductivity		E100	1	μS/cm	147 μS/cm	98.6	90.0	110	
Physical Tests (QCLot: 1500788)									
Solids, total dissolved [TDS]		E162-L	3	mg/L	1000 mg/L	95.7	85.0	115	
Physical Tests (QCLot: 1500790)									
Solids, total suspended [TSS]		E160-L	1	mg/L	150 mg/L	98.3	85.0	115	
Anions and Nutrients (QCLot: 1495242)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.03 mg/L	103	80.0	120	
Anions and Nutrients (QCLot: 1498967)									
Chloride	16887-00-6	E235.CI	0.5	mg/L	100 mg/L	99.5	90.0	110	
Anions and Nutrients (QCLot: 1498969)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.8	90.0	110	
Anions and Nutrients (QCLot: 1498970)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	
Anions and Nutrients (QCLot: 1498971)									•
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	
Anions and Nutrients (QCLot: 1498972)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	94.0	80.0	120	
Anions and Nutrients (QCLot: 1500857)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.6	85.0	115	
Organic / Inorganic Carbon (QCLot: 1500335)									
Carbon, total organic [TOC]		E355-L	0.5	mg/L	8.57 mg/L	95.7	80.0	120	
Total Metals (QCLot: 1498144)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	109	80.0	120	
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	105	80.0	120	

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Analyte Total Metals (QCLot: 1498144) - continued Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4	E420 E420 E420 E420 E420 E420 E420	0.0001 0.0001 0.0001 0.00002 0.00005 0.01 0.000005 0.05	mg/L mg/L mg/L mg/L mg/L	Spike Target Concentration 1 mg/L 0.25 mg/L 0.1 mg/L 1 mg/L	111 104 108 112	80.0 80.0 80.0 80.0 80.0	Limits (%) High 120 120 120 120	Qualifier
Total Metals (QCLot: 1498144) - continued Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420 E420 E420 E420	0.0001 0.0001 0.00002 0.00005 0.01	mg/L mg/L mg/L mg/L	1 mg/L 0.25 mg/L 0.1 mg/L 1 mg/L	111 104 108	80.0 80.0 80.0	120 120 120	
Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420 E420 E420	0.0001 0.00002 0.00005 0.01 0.000005	mg/L mg/L mg/L	0.25 mg/L 0.1 mg/L 1 mg/L	104 108	80.0 80.0	120 120	
Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420 E420 E420	0.0001 0.00002 0.00005 0.01 0.000005	mg/L mg/L mg/L	0.25 mg/L 0.1 mg/L 1 mg/L	104 108	80.0 80.0	120 120	
Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420 E420	0.00002 0.00005 0.01 0.000005	mg/L mg/L	0.1 mg/L 1 mg/L	108	80.0	120	
Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420	0.00005 0.01 0.000005	mg/L	1 mg/L				
Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420	0.01 0.000005	_	_	112	80.0	400	
Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420	0.000005	mg/L				120	
Calcium, total Cesium, total Chromium, total Cobalt, total	7440-70-2 7440-46-2 7440-47-3	E420			1 mg/L	106	80.0	120	
Cesium, total Chromium, total Cobalt, total	7440-46-2 7440-47-3		0.05	mg/L	0.1 mg/L	107	80.0	120	
Chromium, total Cobalt, total	7440-47-3	E420	2.00	mg/L	50 mg/L	105	80.0	120	
Cobalt, total			0.00001	mg/L	0.05 mg/L	106	80.0	120	
	7440-48-4	E420	0.0005	mg/L	0.25 mg/L	108	80.0	120	
0		E420	0.0001	mg/L	0.25 mg/L	107	80.0	120	
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	108	80.0	120	
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	103	80.0	120	
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	108	80.0	120	
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	106	80.0	120	
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	109	80.0	120	
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	105	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	107	80.0	120	
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	110	80.0	120	
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	115	80.0	120	
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	104	80.0	120	
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	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	115	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	100	80.0	120	
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	107	80.0	120	
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	106	80.0	120	
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	108	80.0	120	
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	108	80.0	120	
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	105	80.0	120	
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	109	80.0	120	
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	106	80.0	120	

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water						Laboratory Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1498144) - continued									
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	98.6	80.0	120	
Total Metals (QCLot: 1502049)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.6	80.0	120	
Dissolved Metals (QCLot: 1498545)									
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	100	80.0	120	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	103	80.0	120	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.8	80.0	120	
Volatile Organic Compounds (QCLot: 149590	05)								
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	113	70.0	130	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 µg/L	118	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 µg/L	115	70.0	130	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	119	70.0	130	
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 µg/L	119	70.0	130	
Volatile Organic Compounds (QCLot: 149660	07)								
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	87.6	70.0	130	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	90.6	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	85.9	70.0	130	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	90.0	70.0	130	
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	90.3	70.0	130	
Hydrocarbons (QCLot: 1495906)									
F1 (C6-C10)		E581.F1	100	μg/L	2480 μg/L	99.5	70.0	130	
Hydrocarbons (QCLot: 1496606)									
F1 (C6-C10)		E581.F1	100	μg/L	2480 μg/L	129	70.0	130	
Hydrocarbons (QCLot: 1500290)									
F2 (C10-C16)		E601	100	μg/L	3830 μg/L	98.8	70.0	130	
F3 (C16-C34)		E601	250	μg/L	7950 μg/L	97.4	70.0	130	
F4 (C34-C50)		E601	250	μg/L	4220 μg/L	99.9	70.0	130	

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Client : Stantec Consulting Ltd.

Project : 123515016



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		
					Spi	ke	Recovery (%)	Recovery	Limits (%)	
Laboratory sample	ID Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nut	rients (QCLot: 149524	2)								
VA24B3608-006	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0457 mg/L	0.05 mg/L	91.4	70.0	130	
Anions and Nut	rients (QCLot: 149896	7)								
FJ2401682-002	Anonymous	Chloride	16887-00-6	E235.CI	102 mg/L	100 mg/L	102	75.0	125	
Anions and Nut	rients (QCLot: 149896	9)								
FJ2401682-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.52 mg/L	2.5 mg/L	101	75.0	125	
Anions and Nut	rients (QCLot: 149897	(0)								
FJ2401682-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.505 mg/L	0.5 mg/L	101	75.0	125	
Anions and Nut	rients (QCLot: 149897	1)								1
FJ2401682-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	
Anions and Nut	rients (QCLot: 149897	2)								
FJ2401682-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0282 mg/L	0.03 mg/L	94.2	70.0	130	
	rients (QCLot: 150085	, , ,			3	J. 100				
VA24B3793-010	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L		ND	75.0	125	
	anic Carbon (QCLot: 1	, ,			112 113/2					
CG2408017-001	Anonymous	Carbon, total organic [TOC]		E355-L	5.26 mg/L	5 mg/L	105	70.0	130	
Total Metals (Q										
Total Metals (Q			7429-90-5	E420	ND mg/L		ND	70.0	130	
	CLot: 1498144)	Aluminum, total Antimony, total	7429-90-5 7440-36-0	E420 E420	ND mg/L 0.0193 mg/L	 0.02 mg/L	ND 96.7	70.0 70.0	130 130	
	CLot: 1498144)	Aluminum, total			-					
	CLot: 1498144)	Aluminum, total Antimony, total	7440-36-0	E420	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total	7440-36-0 7440-38-2	E420 E420	0.0193 mg/L 0.0206 mg/L	0.02 mg/L 0.02 mg/L	96.7 103	70.0 70.0	130 130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total	7440-36-0 7440-38-2 7440-39-3	E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L	0.02 mg/L 0.02 mg/L 	96.7 103 ND	70.0 70.0 70.0	130 130 130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7	E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L	96.7 103 ND 102	70.0 70.0 70.0 70.0	130 130 130 130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9	E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L	96.7 103 ND 102 98.3 98.2	70.0 70.0 70.0 70.0 70.0	130 130 130 130 130	
	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8	E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L 0.00393 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L	96.7 103 ND 102 98.3	70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130	
<u> </u>	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9	E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L	96.7 103 ND 102 98.3 98.2 98.2	70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2	E420 E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L 0.01 mg/L	96.7 103 ND 102 98.3 98.2 98.2 ND	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.104 mg/L 0.004 mg/L 0.01 mg/L 0.04 mg/L 0.04 mg/L	96.7 103 ND 102 98.3 98.2 98.2 ND 100 98.8	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Chromium, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4	E420 E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.004 mg/L 0.01 mg/L 0.004 mg/L 0.004 mg/L 0.004 mg/L 0.004 mg/L	96.7 103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
<u> </u>	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 0.0190 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.10 mg/L 0.004 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L	96.7 103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6	E420 E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 0.0190 mg/L 1.72 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.10 mg/L 0.004 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L 0.02 mg/L 2 mg/L	96.7 103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5 95.1	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
`	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1	E420 E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 1.72 mg/L 0.0190 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L	96.7 103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5 95.1 86.2 95.3	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total Lithium, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-93-2	E420 E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 1.72 mg/L 0.0190 mg/L 0.0190 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 1 mg/L 0.102 mg/L 0.102 mg/L 0.102 mg/L	96.7 103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5 95.1 86.2 95.3 99.1	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
<u> </u>	CLot: 1498144)	Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total	7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1	E420 E420 E420 E420 E420 E420 E420 E420	0.0193 mg/L 0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 1.72 mg/L 0.0190 mg/L	0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L	96.7 103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5 95.1 86.2 95.3	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	

Page : 13 of 14 Work Order : YL2400658

Client : Stantec Consulting Ltd.



Sub-Matrix: Water							Matrix Spil	re (MS) Report		
					Spi	ke	Recovery (%)	Recovery	Limits (%)	
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
otal Metals (QCI	Lot: 1498144) - con	tinued								
FJ2401681-005	Anonymous	Nickel, total	7440-02-0	E420	0.0387 mg/L	0.04 mg/L	96.7	70.0	130	
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	
		Potassium, total	7440-09-7	E420	ND mg/L		ND	70.0	130	
		Rubidium, total	7440-17-7	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	
		Selenium, total	7782-49-2	E420	0.0402 mg/L	0.04 mg/L	101	70.0	130	
		Silicon, total	7440-21-3	E420	9.39 mg/L	10 mg/L	93.9	70.0	130	
		Silver, total	7440-22-4	E420	0.00390 mg/L	0.004 mg/L	97.4	70.0	130	
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130	
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130	
		Sulfur, total	7704-34-9	E420	ND mg/L		ND	70.0	130	
		Tellurium, total	13494-80-9	E420	0.0396 mg/L	0.04 mg/L	98.9	70.0	130	
		Thallium, total	7440-28-0	E420	0.00377 mg/L	0.004 mg/L	94.4	70.0	130	
		Thorium, total	7440-29-1	E420	0.0182 mg/L	0.02 mg/L	90.9	70.0	130	
		Tin, total	7440-31-5	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	
		Titanium, total	7440-32-6	E420	0.0391 mg/L	0.04 mg/L	97.9	70.0	130	
		Tungsten, total	7440-33-7	E420	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	
		Uranium, total	7440-61-1	E420	0.00370 mg/L	0.004 mg/L	92.4	70.0	130	
		Vanadium, total	7440-62-2	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	
		Zinc, total	7440-66-6	E420	0.394 mg/L	0.4 mg/L	98.4	70.0	130	
		Zirconium, total	7440-67-7	E420	0.0400 mg/L	0.04 mg/L	100.0	70.0	130	
otal Metals (QC	Lot: 1502049)									
VA24B3720-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000957 mg/L	0 mg/L	95.7	70.0	130	
Dissolved Metals	(QCLot: 1498545)									
VA24B3588-002	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L		ND	70.0	130	
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130	
		Potassium, dissolved	7440-09-7	E421	75.4 mg/L	80 mg/L	94.2	70.0	130	
		Sodium, dissolved	7440-23-5	E421	ND mg/L		ND	70.0	130	
/olatile Organic C	Compounds (QCLot	: 1495905)								
VA24B3445-001	Anonymous	Benzene	71-43-2	E611A	113 µg/L	100 μg/L	113	70.0	130	
		Ethylbenzene	100-41-4	E611A	119 µg/L	100 μg/L	119	70.0	130	
		Toluene	108-88-3	E611A	116 µg/L	100 μg/L	116	70.0	130	
		Xylene, m+p-	179601-23-1	E611A	239 µg/L	200 μg/L	120	70.0	130	
		Xylene, o-	95-47-6	E611A	118 μg/L	100 µg/L	118	70.0	130	
	Compounds (QCLot	: 1496607)								
olatile Organic C			71-43-2	E611A	90.2 μg/L	100 μg/L	90.2	70.0	130	
	Anonymous	Benzene	11-43-2						1	1
/olatile Organic C	Anonymous	Benzene Ethylbenzene	100-41-4	E611A	93.6 μg/L	100 μg/L	93.6	70.0	130	
	Anonymous				93.6 μg/L 91.2 μg/L	100 μg/L 100 μg/L	93.6 91.2	70.0 70.0	130 130	
The second second	Anonymous	Ethylbenzene	100-41-4	E611A						

Page : 14 of 14 Work Order : YL2400658

Client : Stantec Consulting Ltd.





Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here

COC Number: 14 -

FINAL SHIPMENT RECEPTION (lab use only) Date:		Received by:	00: I	TON (lab use only) Date: Time:	INITIAL SHIPMENT RECEPTION (lab use only) Date: 13/21	Received by:	Time: 0%:30	~	SHIPMENT RELEAS	Released by:
ATURES *C FINAL COOLER TEMPERATURES *C	NUTTIAL COOLER TEMPERATURES °C	INITIAL COOLER	116						man drinkir	ure samples for hu ┌ Yes
¥ Yes □	10	ice packs	0.50					starn?	Are samples taken from a Regulated DW System?	re samples taken Yes
SAMPLE CONDITION AS RECEIVED (lab use only) SIF Observations Yes No	SAMPLE	Frozen		report (client Us	ify Criteria to add or	Special instructions / Specify Criteria to add on report (client Use)	-	ient use)	Drinking Water (DW) Samples ¹ (client use)	Drinking
Telephone : +1 867 873 5593	,		Water		12-340-21		220	00001-025	6-10- 2024-	
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YI 2400658		5	weter		12-JUN-24		003	11	6-6-2024-6	
Work Order Beference		5	Water		12-Jus-24		92	00001 -002	GUG-2024-1	
Environmental Division		2	water		12-344-24		661	1	616-2024-00001	
	QI	Ground: Surface	Sample Type	Time (humm)	Date (dd-mmm-yy)	nates sport)	and/or Coord	Sample Identification and/or Coordinates (This description will appear on the report)	Sampi (This	ALS Sample # (lab use only)
	/00	e de la composition della comp		Sampler:		ALS Contact:			ALS Lab Work Order # (lab use only)	ALS Lab Wor
	7					Location:				SD:
		-				Activity Code:				PO / AFE:
		SNP		Routing Code:		GL Account:			123515016	Job#:
				Cost Center:		Approver ID:			YL24-STAC100-003	ALS Quote #:
			ise)	Fields (client u	Oil and Gas Required Fields (client use)			ormation	Project Information	
						Email 2				Contact:
	1			tec.com	SAPinvoices@stantec.com	Email 1 or Fax			Stantec Consulting Ltd.	Company:
			□FAX	MAIL MAIL	Distribution: SEMAIL	Select Invoice Distribution:	रा No	π Γ Yes	Copy of Invoice with Report	
Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	icate Filtered (F), F	Ind		tribution	Invoice Distribution		No No	Г Үөз	Same as Report To	invoice To
Analysis Request				stantec.com	steve.hannington@stantec.com	Email 2			(867) 920-2882	
rE2,E or P:	Specify Date Required for E2,E or P.	pecify Dat	S	u@stantec.com	Email 1 or Fax natalie.normandeau@stantec.com	Email 1 or Fax			(204) 509-9864	Phone:
Same day or weekend emergency - contact ALS to confirm TAT and surcharge	me day or weeken		FAX		tion:	Select Distribution:			Yellowknife, NT X1A 2P4	
Emergency (1-2 bus, days if received by 3pm) 100% surcharge - contact ALS to confirm TAT	nergency (1-2 bus.			S S	Criteria on Report - provide details below if box checked	Criteria on Rep			4910 53 St, PO Box 1777	Address:
Priority (2.4 bus, days if received by 3pm) 50% surcharge - contact ALS to confirm TAT	iority (2-4 bus. day	-	¬ .	ব	epor	Quality Control			Natalie Normandeau	
Regular (Standard TAT if received by 3 pm - business days)	gular (Standard TA	Re Re	PEDD (DIGITAL)	S EXCEL	Format: V PDF	Select Report Format:			Stantec Consulting Ltd.	ij
Select Service Level Below (Rush Tumaround Time (TAT) is not available for all tests)	lect Service Level	Sel		/ Distribution	Report Format / Distribution					Report To

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIELY. 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 Orinking Water (DW) System please submit using an Authorized DW COC form. REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Work Order : **YL2400666** Page : 1 of 10

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg
Address : 4910 53 Street Address : 314 Old Airpor

: 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 2P4 Yellowknife NT Canada X1A 3T3

 Telephone
 : -- Telephone
 : 1 867 445 7143

 Project
 : 123515016
 Date Samples Received
 : 13-Jun-2024 15:56

PO : --- Date Analysis Commenced : 18-Jun-2024
C-O-C number : --- Issue Date : 24-Jun-2024 10:21

C-O-C number : ---- Issue Date
Sampler : ----

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 6
No. of samples analysed : 6

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
- Surrogate Control Limits

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

Site

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	
Cynthia Bauer	Organic Supervisor	Organics, Calgary, Alberta	
Elke Tabora	Lab Analyst	Inorganics, Calgary, Alberta	
Erin Sanchez		Metals, Burnaby, British Columbia	
Hannah Phung	Lab Assistant	Inorganics, Calgary, Alberta	
Jyotsnarani Devi	Laboratory Analyst	Organics, Calgary, Alberta	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia	
Monica Ko	Lab Assistant	Inorganics, Burnaby, British Columbia	
Nguyen Tran	Laboratory Analyst	Organics, Calgary, Alberta	
Owen Cheng		Metals, Burnaby, British Columbia	
Shirley Li	Team Leader - Inorganics	Inorganics, Calgary, Alberta	

Page : 2 of 10 Work Order : YL2400666

Client : Stantec Consulting Ltd.

Project : 123515016



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less 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.

Sample Comments

Sample	Client Id	Comment
YL2400666-001	GLG-2024-00001-015	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400666-002	GLG-2024-00001-016	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400666-003	GLG-2024-00001-009	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400666-004	GLG-2024-00001-020	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400666-005	GLG-2024-00001-014	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.
YL2400666-006	GLG-2024-00001-017	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.

>: greater than.

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Stantec Consulting Ltd. 123515016 Client

Project



Sub-Matrix: Water			CI	lient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					1-015	1-016	1-009	1-020	1-014
Analysis		Method/Lab	Client samp	ling date / time	13-Jun-2024 09:52 YL2400666-001	13-Jun-2024 10:57 YL2400666-002	13-Jun-2024 11:52 YL2400666-003	13-Jun-2024 11:52 YL2400666-004	13-Jun-2024 12:38 YL2400666-005
Analyte	CAS Number	Method/Lab	LOR	Onit	Result	Result	Result	Result	Result
Physical Tests					Nesuit	rtesuit	Result	Result	Result
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	67.5	39.7	40.8	40.3	42.0
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	67.5	39.7	40.8	40.3	42.0
Conductivity		E100/VA	2.0	μS/cm	184	100	103	103	104
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	89.9	43.2	44.9	44.3	45.7
pH		E108/VA	0.10	pH units	7.75	7.88	7.89	7.91	7.88
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	156	60.8	62.5	54.5	54.8
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	1.1	<1.0	<1.0	<1.0	<1.0
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	86.2	42.7	41.8	42.2	44.8
Anions and Nutrients		111111111							
Ammonia, total (as N)	7664-41-7	E298/CG	0.0050	mg/L	0.0151	<0.0050	<0.0050	<0.0050	<0.0050
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	<0.50	1.34	1.35	1.34	1.39
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate (as NO3)	14797-55-8	EC235.NO3A/ VA	0.010	mg/L	<0.022	<0.022	<0.022	<0.022	<0.022
Nitrate + Nitrite (as N)		EC235.N+N/V	0.0050	mg/L	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nitrite (as NO2)	14797-65-0	EC235.NO2A/ VA	0.0030	mg/L	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0		0.0020	mg/L	0.0204	0.0071	0.0091	0.0064	0.0083
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	20.1	7.18	7.60	7.56	7.45
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/CG	0.50	mg/L	25.9	3.61	3.89	3.76	3.18
Total Metals									

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Stantec Consulting Ltd. 123515016 Client

Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				1-015	1-016	1-009	1-020	1-014
			ling date / time	13-Jun-2024 09:52	13-Jun-2024 10:57	13-Jun-2024 11:52	13-Jun-2024 11:52	13-Jun-2024 12:38
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400666-001	YL2400666-002	YL2400666-003	YL2400666-004	YL2400666-005
Total Metals				Result	Result	Result	Result	Result
Aluminum, total	7429-90-5 E420/VA	0.0030	mg/L	0.0374	0.0094	0.0151	0.0136	0.0102
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00298	0.00029	0.00052	0.00054	0.00028
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0160	0.00449	0.00450	0.00443	0.00467
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8 E420/VA	0.010	mg/L	0.013	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.000050	<0.000050	<0.000050	<0.0000050	<0.000050
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	23.6	12.3	12.7	12.8	12.9
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	0.000023	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.00154	<0.00010	<0.00010	<0.00010	<0.00010
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	<0.00050	0.00052	0.00065	0.00065	0.00056
Iron, total	7439-89-6 E420/VA	0.010	mg/L	0.093	<0.010	0.012	0.011	<0.010
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0074	0.0020	0.0020	0.0020	0.0021
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	7.52	3.04	3.20	2.99	3.28
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.0778	0.00318	0.00244	0.00252	0.00269
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.000050	<0.000050	<0.0000050	<0.0000050	<0.000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	<0.000050	0.000083	0.000144	0.000146	0.000090
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.0169	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	2.05	1.56	1.56	1.58	1.62
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00306	0.00207	0.00200	0.00191	0.00213
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.46	0.16	0.18	0.17	0.20
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	4.45	2.46	2.48	2.54	2.59
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.0915	0.0445	0.0465	0.0451	0.0467
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	7.98	2.61	2.81	2.70	2.90

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Stantec Consulting Ltd. 123515016 Client

Project

Sub-Matrix: Water		Cli	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				1-015	1-016	1-009	1-020	1-014
		Client samp	ling date / time	13-Jun-2024 09:52	13-Jun-2024 10:57	13-Jun-2024 11:52	13-Jun-2024 11:52	13-Jun-2024 12:38
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400666-001	YL2400666-002	YL2400666-003	YL2400666-004	YL2400666-005
				Result	Result	Result	Result	Result
Total Metals								
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	0.00035	<0.00030	0.00040	0.00034	0.00034
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.000029	0.000090	0.000156	0.000154	0.000095
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals								
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	23.0	12.2	11.9	12.1	12.6
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	6.99	2.98	2.94	2.90	3.24
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	1.95	1.55	1.50	1.49	1.66
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	3.90	2.26	2.21	2.19	2.34
Dissolved metals filtration location	EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	108-88-3 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, o-	95-47-6 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes, total	1330-20-7 E611A/CG	0.75	μg/L	<0.75	<0.75	<0.75	<0.75	<0.75
BTEX, total	E611A/CG	1.2	μg/L	<1.2	<1.2	<1.2	<1.2	<1.2
Hydrocarbons								
F1 (C6-C10)	E581.F1/CG	100	μg/L	<100	<100	<100	<100	<100
F1-BTEX	EC580/CG	100	μg/L	<100	<100	<100	<100	<100
F2 (C10-C16)	E601/CG	100	μg/L	<100	<100	<100	<100	<100
F3 (C16-C34)	E601/CG	250	μg/L	<250	<250	<250	<250	<250
F4 (C34-C50)	E601/CG	250	μg/L	<250	<250	<250	<250	<250

Page : 6 of 10 Work Order : YL2400666

Client : Stantec Consulting Ltd.

Project : 123515016



Analytical Results

Sub-Matrix: Water			Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					1-015	1-016	1-009	1-020	1-014
			Oli and a series	Barratata (Barra					
			Client samp	ling date / time	13-Jun-2024	13-Jun-2024	13-Jun-2024	13-Jun-2024	13-Jun-2024
					09:52	10:57	11:52	11:52	12:38
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400666-001	YL2400666-002	YL2400666-003	YL2400666-004	YL2400666-005
					Result	Result	Result	Result	Result
Hydrocarbons									
Hydrocarbons, total (C6-C50)	n/a E	C581/CG	400	μg/L	<400	<400	<400	<400	<400
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	78.0	86.0	88.6	87.2	86.3
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	89.1	115	123	117	115
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	71.5	75.5	75.8	81.6	76.5
Difluorobenzene, 1,4-	540-36-3 E	611A/CG	1.0	%	95.4	102	95.9	96.5	97.5

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

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

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Stantec Consulting Ltd. 123515016 Client

Project

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	 	
(Matrix: Water)					1-017		
			Client samp	ling date / time	13-Jun-2024 13:33	 	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400666-006	 	
					Result	 	
Physical Tests							
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	41.8	 	
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	 	
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	 	
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	 	
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	41.8	 	
Conductivity		E100/VA	2.0	μS/cm	105	 	
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	45.1	 	
рН		E108/VA	0.10	pH units	7.89	 	
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	55.2	 	
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	<1.0	 	
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	44.4	 	
Anions and Nutrients							
Ammonia, total (as N)	7664-41-7	E298/CG	0.0050	mg/L	<0.0050	 	
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	1.40	 	
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	<0.0050	 	
Nitrate (as NO3)	14797-55-8	A EC235.NO3A/ VA	0.010	mg/L	<0.022	 	
Nitrate + Nitrite (as N)		EC235.N+N/V A	0.0050	mg/L	<0.0051	 	
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	 	
Nitrite (as NO2)		EC235.NO2A/ VA	0.0030	mg/L	<0.0033	 	
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	 	
Phosphorus, total	7723-14-0	E372-U/CG	0.0020	mg/L	0.0077	 	
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	7.61	 	
Organic / Inorganic Carbon							
Carbon, total organic [TOC]		E355-L/CG	0.50	mg/L	2.96	 	
Total Metals							
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0134	 	

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Stantec Consulting Ltd. 123515016 Client

Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	 	
(Matrix: Water)				1-017		
		Client samp	ling date / time	13-Jun-2024 13:33	 	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400666-006	 	
				Result	 	
Total Metals	Tuesta	0.00040		0.00040		
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	<0.00010	 	
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00027	 	
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.00476	 	
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	 	
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	 	
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010	 	
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.0000050	 	
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	12.8	 	
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010	 	
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	 	
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	<0.00010	 	
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00058	 	
Iron, total	7439-89-6 E420/VA	0.010	mg/L	0.014	 	
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	 	
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0021	 	
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	3.20	 	
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.00271	 	
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	 	
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000088	 	
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	<0.00050	 	
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	 	
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.63	 	
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00216	 	
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050	 	
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.18	 	
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	 	
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	2.62	 	
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.0450	 	
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	2.80	 	
Tellurium, total	13494-80-9 E420/VA	0.00020		<0.00020	 	
renunum, total	13494-80-9 - 420/ VA	0.00020	mg/L	~ 0.00020	 	

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Stantec Consulting Ltd. 123515016 Client

Project

Sub-Matrix: Water		Cl	ient sample ID	GLG-2024-0000	 	
(Matrix: Water)				1-017		
		Client samp	ling date / time	13-Jun-2024 13:33	 	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400666-006	 	
				Result	 	
Total Metals						
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000010	 	
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00010	 	
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00010	 	
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	0.00032	 	
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010	 	
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.000093	 	
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050	 	
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	<0.0030	 	
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020	 	
Dissolved Metals						
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	12.6	 	
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	3.15	 	
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	1.65	 	
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	2.35	 	
Dissolved metals filtration location	EP421/VA	-	-	Field	 	
Volatile Organic Compounds [BTEXS+MTBE]						
Benzene	71-43-2 E611A/CG	0.50	μg/L	<0.50	 	
Ethylbenzene	100-41-4 E611A/CG	0.50	μg/L	<0.50	 	
Toluene	108-88-3 E611A/CG	0.50	μg/L	<0.50	 	
Xylene, m+p-	179601-23-1 E611A/CG	0.50	μg/L	<0.50	 	
Xylene, o-	95-47-6 E611A/CG	0.50	μg/L	<0.50	 	
Xylenes, total	1330-20-7 E611A/CG	0.75	μg/L	<0.75	 	
BTEX, total	E611A/CG	1.2	μg/L	<1.2	 	
Hydrocarbons						
F1 (C6-C10)	E581.F1/CG	100	μg/L	<100	 	
F1-BTEX	EC580/CG	100	μg/L	<100	 	
F2 (C10-C16)	E601/CG	100	μg/L	<100	 	
F3 (C16-C34)	E601/CG	250	μg/L	<250	 	
F4 (C34-C50)	E601/CG	250	μg/L	<250	 	
Hydrocarbons, total (C6-C50)	n/a EC581/CG	400	μg/L	<400	 	
1	I .	I				

Page : 10 of 10 Work Order : YL2400666

Client : Stantec Consulting Ltd.

Project : 123515016

ALS

Analytical Results

Sub-Matrix: Water		C	lient sample ID	GLG-2024-0000	 	
(Matrix: Water)				1-017		
		Client samp	oling date / time	13-Jun-2024 13:33	 	
Analyte	CAS Number Method/L	ab LOR	Unit	YL2400666-006	 	
				Result	 	
Hydrocarbons Surrogates						
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E601/CG	1.0	%	91.7	 	
Dichlorotoluene, 3,4-	95-75-0 E581.F1/CG	1.0	%	99.4	 	
Volatile Organic Compounds Surrogates						
Bromofluorobenzene, 4-	460-00-4 E611A/CG	1.0	%	73.8	 	
Difluorobenzene, 1,4-	540-36-3 E611A/CG	1.0	%	96.3	 	

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : **YL2400666** Page : 1 of 22

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address :4910 53 Street Address :314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone :---- Telephone :1 867 445 7143

 Project
 : 123515016
 Date Samples Received
 : 13-Jun-2024 15:56

 PO
 : --- Issue Date
 : 24-Jun-2024 10:22

PO : --- Issue Date
C-O-C number :--Sampler ----

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received :6
No. of samples analysed :6

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

Site

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

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.

Page : 3 of 22 Work Order : YL2400666

Client : Stantec Consulting Ltd.

Project : 123515016



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					Ev	/aluation: × =	Holding time excee	edance ; •	= Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00001-009	E298	13-Jun-2024	18-Jun-2024	28	5 days	✓	18-Jun-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00001-014	E298	13-Jun-2024	18-Jun-2024	28	5 days	✓	18-Jun-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)						,				
GLG-2024-00001-015	E298	13-Jun-2024	18-Jun-2024	28	5 days	✓	18-Jun-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)	E298	40 1 0004	40 1 0004		F 1	√	40 1 0004	00 1	5 days	√
GLG-2024-00001-016	E298	13-Jun-2024	18-Jun-2024	28	5 days	•	18-Jun-2024	28 days	5 days	•
				days						
Anions and Nutrients : Ammonia by Fluorescence				I						
Amber glass total (sulfuric acid) GLG-2024-00001-017	E298	13-Jun-2024	18-Jun-2024	00	5 days	√	18-Jun-2024	28 days	5 days	✓
GLG-2024-00001-017	E290	13-Juli-2024	10-Juli-2024	28	5 days	•	10-Jun-2024	20 days	5 days	•
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00001-020	E298	13-Jun-2024	18-Jun-2024	28	5 days	√	18-Jun-2024	28 days	5 days	√
GLG-2024-00001-020	L290	13-3411-2024	10-3011-2024		Juays	•	10-3411-2024	20 days	Juays	*
				days						
Anions and Nutrients : Chloride in Water by IC HDPE				I			I			
GLG-2024-00001-009	E235.CI	13-Jun-2024	18-Jun-2024	28	5 days	√	18-Jun-2024	28 days	5 days	√
OLO 2027-00001-000	2200.01	10-0411-2024	10-0011-2024	days	Juays	•	10-3411-2024	20 days	Juays	·
				uays						

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Client : Stantec Consulting Ltd.



nalyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)	Woulde	Camping Date	Preparation		g Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual	Lvai	Analysis Date	Rec	Actual	Lvai
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-014	E235.CI	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-015	E235.CI	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-016	E235.Cl	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-017	E235.Cl	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-020	E235.Cl	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE GLG-2024-00001-014	E378-U	13-Jun-2024	18-Jun-2024	3 days	4 days	* EHT	19-Jun-2024	3 days	5 days	x EHT
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE GLG-2024-00001-017	E378-U	13-Jun-2024	18-Jun-2024	3 days	4 days	x EHT	19-Jun-2024	3 days	5 days	x EHT
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE GLG-2024-00001-009	E378-U	13-Jun-2024	18-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	x EHT
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE GLG-2024-00001-015	E378-U	13-Jun-2024	18-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	x EH1

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Client : Stantec Consulting Ltd.

Project : 123515016



Matrix: Water Evaluation: **x** = Holding time exceedance; ✓ = Within Holding Time Extraction / Preparation Analyte Group: Analytical Method Method Sampling Date Analysis Container / Client Sample ID(s) Preparation **Holding Times** Eval Analysis Date **Holding Times** Eval Rec Actual Rec Actual Date Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE E378-U 13-Jun-2024 18-Jun-2024 × 19-Jun-2024 GLG-2024-00001-016 3 days 5 days 3 days 5 days × EHT EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) **HDPE** 3 days GLG-2024-00001-020 E378-U 13-Jun-2024 18-Jun-2024 5 days 19-Jun-2024 3 days 5 days EHT EHT Anions and Nutrients : Nitrate in Water by IC (Low Level) HDPE E235.NO3-L 13-Jun-2024 18-Jun-2024 18-Jun-2024 GLG-2024-00001-017 3 days 4 days 30 3 days 4 days 30 EHT EHT Anions and Nutrients: Nitrate in Water by IC (Low Level) **HDPE** GLG-2024-00001-014 E235.NO3-L 13-Jun-2024 18-Jun-2024 3 days 4 days 18-Jun-2024 3 days 5 days EHT EHT Anions and Nutrients : Nitrate in Water by IC (Low Level) **HDPE** E235.NO3-L 18-Jun-2024 13-Jun-2024 18-Jun-2024 5 days * 30 GLG-2024-00001-009 3 days 3 days 5 days EHT EHT Anions and Nutrients : Nitrate in Water by IC (Low Level) **HDPE** E235.NO3-L 13-Jun-2024 5 days GLG-2024-00001-015 18-Jun-2024 3 days 18-Jun-2024 3 days 5 days EHT EHT Anions and Nutrients : Nitrate in Water by IC (Low Level) **HDPE** E235.NO3-L 13-Jun-2024 18-Jun-2024 GLG-2024-00001-016 18-Jun-2024 3 days 5 days 3 days 5 days EHT EHT Anions and Nutrients : Nitrate in Water by IC (Low Level) **HDPE** GLG-2024-00001-020 E235.NO3-L 13-Jun-2024 18-Jun-2024 3 days 5 days 30 18-Jun-2024 3 days 5 days EHT **EHT** Anions and Nutrients : Nitrite in Water by IC (Low Level) **HDPE** E235.NO2-L 13-Jun-2024 GLG-2024-00001-017 18-Jun-2024 3 days 4 days 30 18-Jun-2024 3 days 4 days 30 EHT EHT

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Client : Stantec Consulting Ltd.

Anions and Nutrients : Sulfate in Water by IC

Anions and Nutrients : Sulfate in Water by IC

Anions and Nutrients : Sulfate in Water by IC

GLG-2024-00001-014

GLG-2024-00001-015

GLG-2024-00001-016

HDPE

HDPE

HDPE

Project : 123515016

Matrix: Water



Evaluation: **x** = Holding time exceedance; ✓ = Within Holding Time

18-Jun-2024

18-Jun-2024

18-Jun-2024

28 days

28 days 5 days

28 days 5 days

5 days

Extraction / Preparation Analysis Analyte Group: Analytical Method Method Sampling Date Container / Client Sample ID(s) Preparation **Holding Times** Eval Analysis Date **Holding Times** Eval Rec Actual Rec Actual Date Anions and Nutrients : Nitrite in Water by IC (Low Level) HDPE E235.NO2-L 13-Jun-2024 18-Jun-2024 4 days × 18-Jun-2024 GLG-2024-00001-014 3 days 3 days 5 days 30 EHT EHT Anions and Nutrients : Nitrite in Water by IC (Low Level) **HDPE** GLG-2024-00001-009 E235.NO2-L 13-Jun-2024 18-Jun-2024 3 days 5 days 18-Jun-2024 3 days 5 days EHT EHT Anions and Nutrients : Nitrite in Water by IC (Low Level) HDPE E235.NO2-L 13-Jun-2024 18-Jun-2024 18-Jun-2024 GLG-2024-00001-015 3 days 5 days 30 3 days 5 days æ EHT EHT Anions and Nutrients : Nitrite in Water by IC (Low Level) **HDPE** GLG-2024-00001-016 E235.NO2-L 13-Jun-2024 18-Jun-2024 3 days 5 days 18-Jun-2024 3 days 5 days EHT EHT Anions and Nutrients : Nitrite in Water by IC (Low Level) **HDPE** E235.NO2-L 13-Jun-2024 18-Jun-2024 × 18-Jun-2024 5 days 30 GLG-2024-00001-020 3 days 3 days 5 days EHT EHT Anions and Nutrients : Sulfate in Water by IC HDPE E235.SO4 13-Jun-2024 1 28 days GLG-2024-00001-009 18-Jun-2024 28 5 days 18-Jun-2024 5 days 1 days

13-Jun-2024

13-Jun-2024

13-Jun-2024

18-Jun-2024

18-Jun-2024

18-Jun-2024

5 days

5 days

5 days

1

1

28 days

28

days

28 days

E235.SO4

E235.SO4

E235.SO4

1

1

1

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Client : Stantec Consulting Ltd.



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

Analyte Group : Analytical Method	Method	Sampling Date	Extraction / Preparation				Analysis			
Container / Client Sample ID(s)			Preparation	paration Holding Times		Eval Analysis Date		Holding Times		Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00001-017	E235.SO4	13-Jun-2024	18-Jun-2024	28 days	5 days	√	18-Jun-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00001-020	E235.SO4	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00001-009	E372-U	13-Jun-2024	19-Jun-2024	28 days	6 days	1	19-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00001-014	E372-U	13-Jun-2024	19-Jun-2024	28 days	6 days	✓	19-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00001-015	E372-U	13-Jun-2024	19-Jun-2024	28 days	6 days	1	19-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00001-016	E372-U	13-Jun-2024	19-Jun-2024	28 days	6 days	1	19-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00001-017	E372-U	13-Jun-2024	19-Jun-2024	28 days	6 days	1	19-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00001-020	E372-U	13-Jun-2024	19-Jun-2024	28 days	6 days	✓	19-Jun-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00001-009	E421	13-Jun-2024	18-Jun-2024	180 days	5 days	✓	19-Jun-2024	180 days	6 days	4

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Client : Stantec Consulting Ltd.

Project : 123515016



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

Matrix: Water						raidation. •• =	Holding time excee	suarioc ,	- VVICINII	Holding Hill
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation		Analysis			
Container / Client Sample ID(s)			Preparation Holding Times		g Times	Eval	Analysis Date	Holding Times		Eval
			Date	Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00001-014	E421	13-Jun-2024	18-Jun-2024	180	5 days	✓	19-Jun-2024	180	6 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00001-015	E421	13-Jun-2024	18-Jun-2024	180	5 days	✓	19-Jun-2024	180	6 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00001-016	E421	13-Jun-2024	18-Jun-2024	180	5 days	✓	19-Jun-2024	180	6 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00001-017	E421	13-Jun-2024	18-Jun-2024	180	5 days	✓	19-Jun-2024	180	6 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)				T						
GLG-2024-00001-020	E421	13-Jun-2024	18-Jun-2024	180	5 days	✓	19-Jun-2024	180	6 days	✓
				days				days		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-009	E581.F1	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-014	E581.F1	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)	T									
GLG-2024-00001-015	E581.F1	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
5		40 1 0004	40 1 0004			√	40 1 0004	44	G days	✓
GLG-2024-00001-016	E581.F1	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	o days	•

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Hydrocarbons : CCME PHCs - F2-F4 by GC-FID

Amber glass/Teflon lined cap (sodium bisulfate)

Hydrocarbons : CCME PHCs - F2-F4 by GC-FID

Amber glass/Teflon lined cap (sodium bisulfate)

Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)

GLG-2024-00001-017

GLG-2024-00001-020

GLG-2024-00001-009

Amber glass total (sulfuric acid)

Project : 123515016

Matrix: Water



Evaluation: **x** = Holding time exceedance; ✓ = Within Holding Time

Extraction / Preparation Analyte Group: Analytical Method Method Sampling Date Analysis Container / Client Sample ID(s) **Holding Times** Preparation Holding Times Eval Analysis Date Eval Rec Actual Rec Actual Date Hydrocarbons: CCME PHC - F1 by Headspace GC-FID Amber glass/Teflon lined cap (sodium bisulfate) E581.F1 13-Jun-2024 ✓ GLG-2024-00001-017 19-Jun-2024 6 days 19-Jun-2024 14 days 6 days 14 days Hydrocarbons: CCME PHC - F1 by Headspace GC-FID Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00001-020 E581.F1 13-Jun-2024 19-Jun-2024 6 days 1 19-Jun-2024 14 days 6 days ✓ 14 days Hydrocarbons : CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) E601 13-Jun-2024 19-Jun-2024 6 days 1 19-Jun-2024 40 days 0 days 1 GLG-2024-00001-009 14 davs Hydrocarbons: CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) 1 1 GLG-2024-00001-014 E601 13-Jun-2024 19-Jun-2024 6 days 19-Jun-2024 40 days 0 days 14 days Hydrocarbons: CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) E601 13-Jun-2024 19-Jun-2024 6 days 1 19-Jun-2024 ✓ GLG-2024-00001-015 40 days 0 days 14 days Hydrocarbons: CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) E601 13-Jun-2024 1 1 GLG-2024-00001-016 19-Jun-2024 14 6 days 19-Jun-2024 40 days 0 days days

13-Jun-2024

13-Jun-2024

13-Jun-2024

19-Jun-2024

19-Jun-2024

18-Jun-2024

6 days

6 days

5 days

1

1

14 days

14 days

28 days

E601

E601

E355-L

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Client : Stantec Consulting Ltd.



Matrix: Water	Evaluation: × =	Holding time exceedance ; ✓ = Within Holding Time		
Analyte Group: Analytical Method	Method	Sampling Date	Extraction / Preparation	Analysis

Analyte Group : Analytical Method	Method	Sampling Date	Extraction / Preparation				Analysis			
Container / Client Sample ID(s)			Preparation Holding Times		Eval	Eval Analysis Date		Times	Eval	
			Date	Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustio	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-014	E355-L	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustio	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-015	E355-L	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-016	E355-L	13-Jun-2024	18-Jun-2024	28 days	5 days	~	18-Jun-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-017	E355-L	13-Jun-2024	18-Jun-2024	28 days	5 days	1	18-Jun-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-020	E355-L	13-Jun-2024	18-Jun-2024	28 days	5 days	1	18-Jun-2024	28 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-009	E290	13-Jun-2024	18-Jun-2024	14 days	5 days	√	18-Jun-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-014	E290	13-Jun-2024	18-Jun-2024	14 days	5 days	√	18-Jun-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-015	E290	13-Jun-2024	18-Jun-2024	14 days	5 days	1	18-Jun-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-016	E290	13-Jun-2024	18-Jun-2024	14 days	5 days	✓	18-Jun-2024	14 days	5 days	✓

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Client : Stantec Consulting Ltd.



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

Analyte Group : Analytical Method	Method	Sampling Date	Extraction / Preparation				Analysis			
Container / Client Sample ID(s)			Preparation Holding Times		Eval	Analysis Date	Holding	g Times	Eval	
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-017	E290	13-Jun-2024	18-Jun-2024	14 days	5 days	√	18-Jun-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-020	E290	13-Jun-2024	18-Jun-2024	14 days	5 days	√	18-Jun-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-009	E100	13-Jun-2024	18-Jun-2024	28 days	5 days	4	18-Jun-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-014	E100	13-Jun-2024	18-Jun-2024	28 days	5 days	√	18-Jun-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-015	E100	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-016	E100	13-Jun-2024	18-Jun-2024	28 days	5 days	√	18-Jun-2024	28 days	5 days	~
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-017	E100	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-020	E100	13-Jun-2024	18-Jun-2024	28 days	5 days	✓	18-Jun-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-017	E108	13-Jun-2024	18-Jun-2024	0.25 hrs	119 hrs	# EHTR-FM	18-Jun-2024	0.25 hrs	122 hrs	# EHTR-FM

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Client : Stantec Consulting Ltd.

Project : 123515016

GLG-2024-00001-016



Matrix: Water Evaluation: **x** = Holding time exceedance ; ✓ = Within Holding Time Extraction / Preparation Analysis Analyte Group: Analytical Method Method Sampling Date Container / Client Sample ID(s) **Holding Times** Preparation **Holding Times** Eval Analysis Date Eval Rec Actual Rec Actual Date Physical Tests : pH by Meter HDPE E108 13-Jun-2024 120 hrs 18-Jun-2024 18-Jun-2024 123 hrs GLG-2024-00001-009 0.25 0.25 EHTR-FM EHTR-FM hrs hrs Physical Tests : pH by Meter **HDPE** GLG-2024-00001-014 E108 13-Jun-2024 18-Jun-2024 0.25 120 hrs 18-Jun-2024 0.25 123 hrs EHTR-FM EHTR-FM hrs hrs Physical Tests: pH by Meter HDPE E108 13-Jun-2024 18-Jun-2024 120 hrs 18-Jun-2024 123 hrs GLG-2024-00001-020 0.25 0.25 hrs EHTR-FM hrs EHTR-FM Physical Tests : pH by Meter HDPE GLG-2024-00001-016 E108 13-Jun-2024 18-Jun-2024 0.25 121 hrs 18-Jun-2024 0.25 124 hrs EHTR-FM EHTR-FM hrs hrs Physical Tests : pH by Meter **HDPE** E108 13-Jun-2024 18-Jun-2024 122 hrs × 18-Jun-2024 125 hrs GLG-2024-00001-015 0.25 0.25 EHTR-FM EHTR-FM hrs hrs Physical Tests: TDS by Gravimetry (Low Level) **HDPE** E162-L 13-Jun-2024 1 GLG-2024-00001-009 19-Jun-2024 7 days 6 days Physical Tests: TDS by Gravimetry (Low Level) HDPE GLG-2024-00001-014 E162-L 13-Jun-2024 19-Jun-2024 1 7 days 6 days Physical Tests : TDS by Gravimetry (Low Level) HDPE GLG-2024-00001-015 E162-L 13-Jun-2024 19-Jun-2024 7 days 6 days ✓ Physical Tests: TDS by Gravimetry (Low Level) HDPE

13-Jun-2024

E162-L

6 days

1

19-Jun-2024

7 days

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Client : Stantec Consulting Ltd.



Matrix: Water					Εν	valuation: ≭ =	Holding time excee	edance ; 🖠	✓ = Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00001-017	E162-L	13-Jun-2024					19-Jun-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00001-020	E162-L	13-Jun-2024					19-Jun-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00001-009	E160-L	13-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00001-014	E160-L	13-Jun-2024					21-Jun-2024	7 days	7 days	✓
								,		
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE							1			
GLG-2024-00001-016	E160-L	13-Jun-2024					21-Jun-2024	7 days	7 days	✓
GEO 2024 00001-010	21002	10 0411 202 1					21 0411 2021	, dayo	, dayo	
Physical Tests : TSS by Gravimetry (Low Level)				I						
HDPE	E160-L	13-Jun-2024					21-Jun-2024	7 days	7 days	✓
GLG-2024-00001-017	E100-L	13-Juli-2024					21-Jun-2024	7 days	7 days	•
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE	E400.1	40 1 0004					04 1 0004			
GLG-2024-00001-020	E160-L	13-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE	_,,,,,							L .		
GLG-2024-00001-015	E160-L	13-Jun-2024					21-Jun-2024	7 days	8 days	sc
										EHT
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-017	E508	13-Jun-2024	19-Jun-2024	0 hrs	143 hrs	*	19-Jun-2024	0 hrs	143 hrs	3¢
						UCP				UCP

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

Matrix: Water						aluation. * -	Holding time excee			riolaling Tilli
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	eparation			Analy:	sis	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-009	E508	13-Jun-2024	19-Jun-2024	0 hrs	144 hrs	×	19-Jun-2024	0 hrs	144 hrs	se
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-014	E508	13-Jun-2024	19-Jun-2024	0 hrs	144 hrs	*	19-Jun-2024	0 hrs	144 hrs	3 0
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-020	E508	13-Jun-2024	19-Jun-2024	0 hrs	144 hrs	æ	19-Jun-2024	0 hrs	144 hrs	×
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-016	E508	13-Jun-2024	19-Jun-2024	0 hrs	145 hrs	*	19-Jun-2024	0 hrs	145 hrs	*
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-015	E508	13-Jun-2024	19-Jun-2024	0 hrs	146 hrs	*	19-Jun-2024	0 hrs	146 hrs	sc .
						UCP				UCP
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-009	E420	13-Jun-2024	18-Jun-2024	180	5 days	✓	18-Jun-2024	180	5 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-014	E420	13-Jun-2024	18-Jun-2024	180	5 days	✓	18-Jun-2024	180	5 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-015	E420	13-Jun-2024	18-Jun-2024	180	5 days	✓	18-Jun-2024	180	5 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-016	E420	13-Jun-2024	18-Jun-2024	180	5 days	✓	18-Jun-2024	180	5 days	✓
				days				days		

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

THE THEORY							riolaning arrio oxoo	oudinoo ,	***************************************	
nalyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
otal Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-017	E420	13-Jun-2024	18-Jun-2024	180	5 days	✓	18-Jun-2024	180	5 days	✓
				days				days		
otal Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-020	E420	13-Jun-2024	18-Jun-2024	180	5 days	✓	18-Jun-2024	180	5 days	✓
				days				days		
platile Organic Compounds : BTEX by Headspace GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-009	E611A	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				days						
platile Organic Compounds : BTEX by Headspace GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-014	E611A	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				days						
platile Organic Compounds : BTEX by Headspace GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-015	E611A	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				days						
platile Organic Compounds : BTEX by Headspace GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-016	E611A	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				days						
olatile Organic Compounds : BTEX by Headspace GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-017	E611A	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				days						
platile Organic Compounds : BTEX by Headspace GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-020	E611A	13-Jun-2024	19-Jun-2024	14	6 days	✓	19-Jun-2024	14 days	6 days	✓
				1			1	1	1	

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).

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UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

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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		Evaluati	on: × = QC freque	ency outside spe	ecification; ✓ = 0	QC frequency wi	thin specificatio
Quality Control Sample Type		· ·		ount		Frequency (%)
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1499396	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1500899	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1501390	1	13	7.6	5.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	1501391	1	13	7.6	5.0	✓
Chloride in Water by IC	E235.CI	1499399	1	19	5.2	5.0	✓
Conductivity in Water	E100	1499397	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1498545	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1499413	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1499401	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1499402	1	20	5.0	5.0	✓
pH by Meter	E108	1499395	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1499403	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1501912	1	10	10.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1502049	2	20	10.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1498144	1	19	5.2	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1500335	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1499577	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1499396	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1500899	1	20	5.0	5.0	1
BTEX by Headspace GC-MS	E611A	1501390	1	13	7.6	5.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	1501391	1	13	7.6	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1501854	1	20	5.0	5.0	✓
Chloride in Water by IC	E235.CI	1499399	1	19	5.2	5.0	1
Conductivity in Water	E100	1499397	1	20	5.0	5.0	1
Dissolved Metals in Water by CRC ICPMS	E421	1498545	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1499413	1	19	5.2	5.0	√
Nitrate in Water by IC (Low Level)	E235.NO3-L	1499401	1	19	5.2	5.0	√
Nitrite in Water by IC (Low Level)	E235.NO2-L	1499402	1	20	5.0	5.0	✓
pH by Meter	E108	1499395	1	20	5.0	5.0	1
Sulfate in Water by IC	E235.SO4	1499403	1	19	5.2	5.0	√
TDS by Gravimetry (Low Level)	E162-L	1501912	1	10	10.0	5.0	√
Total Mercury in Water by CVAAS	E508	1502049	2	20	10.0	5.0	√
Total Metals in Water by CRC ICPMS	E420	1498144	1	19	5.2	5.0	<u>√</u>
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1500335	1	19	5.2	5.0	<u>√</u>
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1499577	1	12	8.3	5.0	<u> </u>

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Matrix: Water		Evaluati	on: × = QC freque	ency outside spe	ecification; ✓ = 0	QC frequency wit	hin specification
Quality Control Sample Type				ount		Frequency (%)	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Control Samples (LCS) - Continued							
TSS by Gravimetry (Low Level)	E160-L	1501960	1	19	5.2	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1499396	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1500899	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1501390	1	13	7.6	5.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	1501391	1	13	7.6	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1501854	1	20	5.0	5.0	✓
Chloride in Water by IC	E235.CI	1499399	1	19	5.2	5.0	✓
Conductivity in Water	E100	1499397	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1498545	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1499413	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1499401	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1499402	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1499403	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1501912	1	10	10.0	5.0	√
Total Mercury in Water by CVAAS	E508	1502049	2	20	10.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1498144	1	19	5.2	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1500335	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1499577	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1501960	1	19	5.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1500899	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1501390	1	13	7.6	5.0	✓
Chloride in Water by IC	E235.Cl	1499399	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1498545	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1499413	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1499401	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1499402	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1499403	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1502049	2	20	10.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1498144	1	19	5.2	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1500335	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1499577	1	12	8.3	5.0	√

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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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Vancouver			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Vancouver			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Vancouver			brackish waters) may produce a positive bias by this method. Alternate analysis
				methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			
Chloride in Water by IC	E235.CI	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Sulfate in Water by IC	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Alkalinity Species by Titration	E290	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Vancouver			

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Calgary	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Calgary	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Calgary	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
CCME PHC - F1 by Headspace GC-FID	E581.F1 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
			1	
	ALS Environmental -			Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply
	Calgary			fully with the Reference Method for the Canada-Wide Standard for PHC. Unless
				qualified, all required quality control criteria of the CCME PHC method have been met,
BTEX by Headspace GC-MS	F044A	Water	EPA 8260D (mod)	including response factor and linearity requirements.
BTEX by Headspace GC-IVIS	E611A	vvalei	EFA 6200D (IIIOU)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the
	ALS Environmental -			headspace autosampler, causing VOCs to partition between the aqueous phase and
	Calgary			the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and
,	20100			Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers
	ALS Environmental -			to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially
	Vancouver			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	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
	ALS Environmental -			to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially
	Vancouver			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.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as
	A1 O F			N) + Nitrate (as N).
	ALS Environmental - Vancouver			
Nitrite (as N) converted to Nitrite (as NO2)	EC235.NO2A	Water	Calculation	Nitrite by IC measured as N is converted to the NO2 form by calculation.
Twittle (as iv) converted to write (as ivoz)	EGZ35.NOZA	Water	Calculation	Millite by 10 measured as 14 is converted to the 1402 form by calculation.
	ALS Environmental -			
	Vancouver			
Nitrate (as N) converted to Nitrate (as NO3)	EC235.NO3A	Water	Calculation	Nitrate by IC measured as N is converted to the NO3 form by calculation.
	ALS Environmental -			
	Vancouver			
F1-BTEX	EC580	Water	CCME PHC in Soil - Tier	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene,
			1	ethylbenzene and xylenes (BTEX).
	ALS Environmental -			
C E4 to E4 (00 050)	Calgary	14/-4		
Sum F1 to F4 (C6-C50)	EC581	Water	CCME PHC in Soil - Tier	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16),
	ALS Environmental		1	F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to
	ALS Environmental -			overlap with other fractions.
	Calgary			
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

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Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALS Environmental -			
	Calgary			
Preparation for Total Organic Carbon by	EP355	Water		Preparation for Total Organic Carbon by Combustion
Combustion				
	ALS Environmental -			
	Calgary			
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental -			
	Calgary			
Dissolved Metals Water Filtration	EP421	Water	АРНА 3030В	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental -			
	Vancouver			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the
				headspace autosampler. An aliquot of the headspace is then injected into the
	ALS Environmental -			GC/MS-FID system.
	Calgary			·
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are
				extracted using a hexane liquid-liquid extraction.
	ALS Environmental -			
	Calgary			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order : **YL2400666** Page : 1 of 13

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

llie Normandeau Account Manager : Oliver Gregg

0.53 Street Address : 314 Old Airpor

dress : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone : 1 867 445 7143

Date Samples Received : 13-Jun-2024 15:56

Date Analysis Commenced : 18-Jun-2024

Issue Date : 24-Jun-2024 10:21

QONETT CONTINUE NET

Client : Stantec Consulting Ltd.
Contact : Natalie Normandeau

Address : 4910 53 Street

Yellowknife NT Canada X1A 2P4

Telephone : ---

Project : 123515016

C-O-C number :--Sampler :---

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 6
No. of samples analysed : 6

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

PO

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	
Cynthia Bauer	Organic Supervisor	Calgary Organics, Calgary, Alberta	
Elke Tabora	Lab Analyst	Calgary Inorganics, Calgary, Alberta	
Erin Sanchez		Vancouver Metals, Burnaby, British Columbia	
Hannah Phung	Lab Assistant	Calgary Inorganics, Calgary, Alberta	
Jyotsnarani Devi	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia	
Monica Ko	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia	
Nguyen Tran	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Owen Cheng		Vancouver Metals, Burnaby, British Columbia	
Shirley Li	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta	

Page : 2 of 13 Work Order : YL2400666

Client : Stantec Consulting Ltd.

Project : 123515016



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.

Page : 3 of 13 Work Order : YL2400666

Client : Stantec Consulting Ltd.

Project : 123515016



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	Case Case						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			
	Lot: 1499395)													
YL2400659-002	Anonymous	pH		E108	0.10	pH units	9.20	9.21	0.109%	4%				
Physical Tests (QC	Lot: 1499396)													
YL2400659-002	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	64.6	64.0	0.942%	200%				
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	19.4	19.8	2.06%	200%				
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%				
		* * * * * * * * * * * * * * * * * * * *		E290	1.0	mg/L	9.7	9.9	0.2	Diff <2x LOR				
		Alkalinity, total (as CaCO3)		E290	2.0	mg/L	84.0	83.8	0.241%	20%				
Physical Tests (QC	Lot: 1499397)													
YL2400659-002	Anonymous	Conductivity		E100	2.0	μS/cm	284	285	0.351%	10%				
Physical Tests (QC	Lot: 1501912)													
VA24B4178-001	Anonymous	Solids, total dissolved [TDS]		E162-L	12.0	mg/L	559	555	0.862%	20%				
Anions and Nutrien	ts (QC Lot: 1499399)													
FJ2401691-001	Anonymous	Chloride	16887-00-6	E235.CI	2.50	mg/L	<2.50	<2.50	0	Diff <2x LOR				
Anions and Nutrien	ts (QC Lot: 1499401)													
FJ2401691-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0250	mg/L	1.07	1.08	0.264%	20%				
Anions and Nutrien	ts (QC Lot: 1499402)													
FJ2401691-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR				
Anions and Nutrien	ts (QC Lot: 1499403)													
FJ2401691-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	129	129	0.317%	20%				
Anions and Nutrien	ts (QC Lot: 1499413)													
FJ2401691-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR				
Anions and Nutrien	ts (QC Lot: 1499577)													
VA24B3869-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0209	0.0208	0.432%	20%				
Anions and Nutrien	ts (QC Lot: 1500899)													
VA24B3582-008	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0061	0.0051	0.0010	Diff <2x LOR				
Organic / Inorga <u>nic</u>	Carbon (QC Lot: 15003	35)												
CG2408017-001	Anonymous	Carbon, total organic [TOC]		E355-L	0.50	mg/L	1.90	2.20	0.31	Diff <2x LOR				
Total Metals (QC Lo	ot: 1498144)													
FJ2401672-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.313	0.319	1.94%	20%				

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Client : Stantec Consulting Ltd.



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	Qualifie
Total Metals (QC Lo	ot: 1498144) - continued										
FJ2401672-001	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00935	0.0100	7.13%	20%	
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00052	0.00051	0.00001	Diff <2x LOR	
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.134	0.138	2.75%	20%	
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.000031	0.000041	0.000010	Diff <2x LOR	
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	0.000083	0.000080	0.000004	Diff <2x LOR	
		Boron, total	7440-42-8	E420	0.010	mg/L	0.092	0.094	0.002	Diff <2x LOR	
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000872	0.0000889	1.96%	20%	
		Calcium, total	7440-70-2	E420	0.050	mg/L	85.1	82.7	2.83%	20%	
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000109	0.000111	1.70%	20%	
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00116	0.00170	0.00055	Diff <2x LOR	
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00064	0.00061	0.00003	Diff <2x LOR	
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00237	0.00235	0.00002	Diff <2x LOR	
		Iron, total	7439-89-6	E420	0.010	mg/L	0.485	0.519	6.88%	20%	
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000455	0.000466	0.000011	Diff <2x LOR	
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0199	0.0204	2.49%	20%	
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	25.7	25.1	2.06%	20%	
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.163	0.160	1.92%	20%	
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00396	0.00397	0.0958%	20%	
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00302	0.00302	0.000004	Diff <2x LOR	
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	0.056	0.006	Diff <2x LOR	
		Potassium, total	7440-09-7	E420	0.050	mg/L	4.20	4.23	0.722%	20%	
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00206	0.00203	1.62%	20%	
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000181	0.000142	0.000038	Diff <2x LOR	
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.52	6.40	14.7%	20%	
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000018	0.000018	0.0000001	Diff <2x LOR	
		Sodium, total	7440-23-5	E420	0.050	mg/L	29.4	29.1	0.831%	20%	
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.322	0.330	2.64%	20%	
		Sulfur, total	7704-34-9	E420	0.50	mg/L	18.0	17.8	0.762%	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	0.000019	0.000023	0.000004	Diff <2x LOR	
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	0.00010	0.000004	Diff <2x LOR	
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00023	0.00026	0.00004	Diff <2x LOR	
		Titanium, total	7440-32-6	E420	0.00360	mg/L	<0.00360	<0.00360	0	Diff <2x LOR	
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water							Labora	tory Duplicate (D	JP) 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 Lo	ot: 1498144) - continue	d									
FJ2401672-001	Anonymous	Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00231	0.00232	0.732%	20%	
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00186	0.00186	0.000001	Diff <2x LOR	
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0151	0.0151	0.00007	Diff <2x LOR	
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	
Total Metals (QC Lo	ot: 1502049)										
FJ2401699-017	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
Total Metals (QC L											
YL2400666-003	GLG-2024-00001-009	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
Dissolved Metals (QC Lot: 1498545)										
VA24B3588-001	Anonymous	Calcium, dissolved	7440-70-2	E421	1.00	mg/L	685	684	0.154%	20%	
		Magnesium, dissolved	7439-95-4	E421	0.100	mg/L	210	203	3.26%	20%	
		Potassium, dissolved	7440-09-7	E421	1.00	mg/L	8.84	8.19	0.658	Diff <2x LOR	
		Sodium, dissolved	7440-23-5	E421	1.00	mg/L	30.9	27.7	10.9%	20%	
Volatile Organic Co	mpounds (QC Lot: 150	1390)									
CG2408136-001	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	
		Toluene	108-88-3	E611A	0.50	μg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	<0.00040 mg/L	<0.40	0	Diff <2x LOR	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	<0.00030 mg/L	<0.30	0	Diff <2x LOR	
Hydrocarbons (QC	Lot: 1501391)										
CG2408136-001	Anonymous	F1 (C6-C10)		E581.F1	100	μg/L	<0.10 mg/L	<100	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

Project : 123515016



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

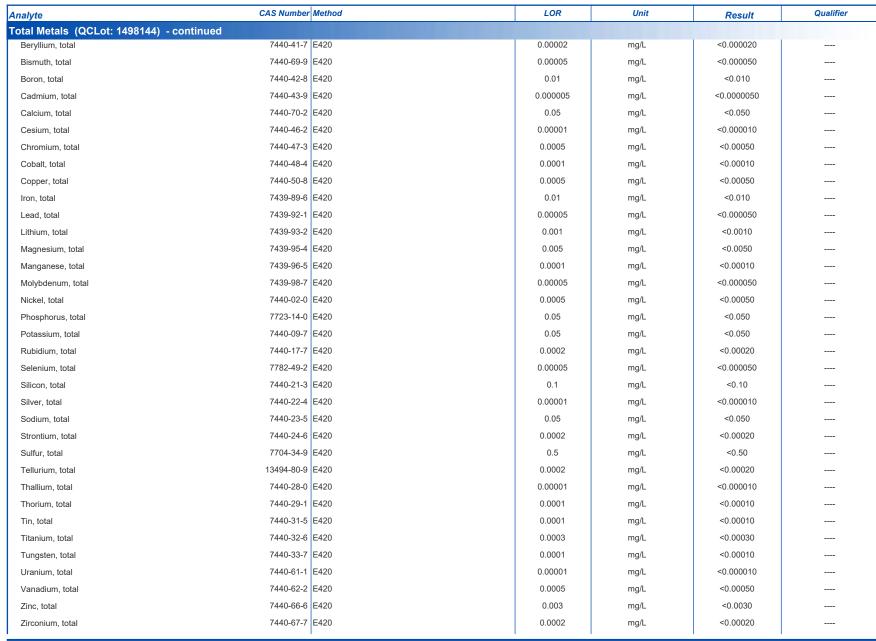
Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1499396)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
hysical Tests (QCLot: 1499397)					
Conductivity	E100	1	μS/cm	<1.0	
hysical Tests (QCLot: 1501912)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
hysical Tests (QCLot: 1501960)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
nions and Nutrients (QCLot: 1499399)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
nions and Nutrients (QCLot: 1499401)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
nions and Nutrients (QCLot: 1499402)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1499403)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
nions and Nutrients (QCLot: 1499413)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1499577)					
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	<0.0020	
nions and Nutrients (QCLot: 1500899)					
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	<0.0050	
rganic / Inorganic Carbon (QCLot: 1500	0335)				
Carbon, total organic [TOC]	E355-L	0.5	mg/L	<0.50	
otal Metals (QCLot: 1498144)					
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	

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Client : Stantec Consulting Ltd.

Project : 123515016

Sub-Matrix: Water



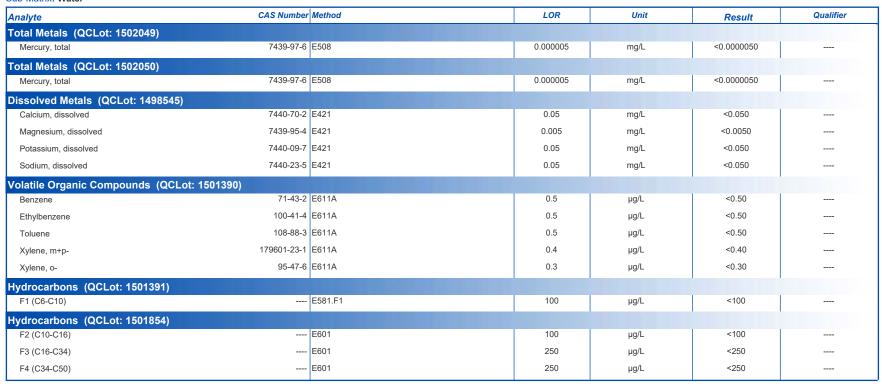


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Client : Stantec Consulting Ltd.

Project : 123515016

Sub-Matrix: Water





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Client : Stantec Consulting Ltd.

Project : 123515016



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 Cor	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1499395)									
рН		E108		pH units	7 pH units	100	98.0	102	
Physical Tests (QCLot: 1499396)									
Alkalinity, phenolphthalein (as CaCO3)		E290	1	mg/L	229 mg/L	105	75.0	125	
Alkalinity, total (as CaCO3)		E290	1	mg/L	500 mg/L	109	85.0	115	
Physical Tests (QCLot: 1499397)									
Conductivity		E100	1	μS/cm	147 μS/cm	102	90.0	110	
Physical Tests (QCLot: 1501912)									
Solids, total dissolved [TDS]		E162-L	3	mg/L	1000 mg/L	98.0	85.0	115	
Physical Tests (QCLot: 1501960)									
Solids, total suspended [TSS]		E160-L	1	mg/L	150 mg/L	89.5	85.0	115	
Anions and Nutrients (QCLot: 1499399)									
Chloride	16887-00-6	E235.CI	0.5	mg/L	100 mg/L	101	90.0	110	
Anions and Nutrients (QCLot: 1499401)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	
Anions and Nutrients (QCLot: 1499402)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.3	90.0	110	
Anions and Nutrients (QCLot: 1499403)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	
Anions and Nutrients (QCLot: 1499413)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	93.9	80.0	120	
Anions and Nutrients (QCLot: 1499577)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.03 mg/L	101	80.0	120	
Anions and Nutrients (QCLot: 1500899)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	
Organic / Inorganic Carbon (QCLot: 1500335)									
Carbon, total organic [TOC]		E355-L	0.5	mg/L	8.57 mg/L	95.7	80.0	120	
Total Metals (QCLot: 1498144)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	109	80.0	120	
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	105	80.0	120	
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Client : Stantec Consulting Ltd.



Sub-Matrix: Water						Laboratory Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1498144) - continu	ied								
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	111	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	108	80.0	120	
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	112	80.0	120	
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	106	80.0	120	
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	107	80.0	120	
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	105	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	108	80.0	120	
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	107	80.0	120	
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	108	80.0	120	
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	103	80.0	120	
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	108	80.0	120	
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	106	80.0	120	
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	109	80.0	120	
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	105	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	107	80.0	120	
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	110	80.0	120	
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	115	80.0	120	
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	104	80.0	120	
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	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	115	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	100	80.0	120	
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	107	80.0	120	
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	
Tin, total	7440-31-5		0.0001	mg/L	0.5 mg/L	106	80.0	120	
Titanium, total	7440-32-6		0.0003	mg/L	0.25 mg/L	108	80.0	120	
Tungsten, total	7440-33-7		0.0001	mg/L	0.1 mg/L	108	80.0	120	
Uranium, total	7440-61-1		0.00001	mg/L	0.005 mg/L	105	80.0	120	
Vanadium, total	7440-62-2		0.0005	mg/L	0.5 mg/L	109	80.0	120	
Zinc, total	7440-66-6		0.003	mg/L	0.5 mg/L	106	80.0	120	
	10 00 0		0.000	9, =	0.0 mg/2	.00	55.5	.20	1

Page : 11 of 13 Work Order : YL2400666

Client : Stantec Consulting Ltd.



Sub-Matrix: Water						Laboratory Co	ontrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1498144) - contin	nued								
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	98.6	80.0	120	
Total Metals (QCLot: 1502049)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.6	80.0	120	
Total Metals (QCLot: 1502050)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	96.2	80.0	120	
Dissolved Metals (QCLot: 1498545)									
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	100	80.0	120	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	103	80.0	120	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.8	80.0	120	
Volatile Organic Compounds (QCLot:	1501390)								
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	104	70.0	130	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	108	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	106	70.0	130	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	107	70.0	130	
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	105	70.0	130	
Hydrocarbons (QCLot: 1501391)									
F1 (C6-C10)		E581.F1	100	μg/L	2480 μg/L	114	70.0	130	
Hydrocarbons (QCLot: 1501854)									
F2 (C10-C16)		E601	100	μg/L	3830 μg/L	94.5	70.0	130	
F3 (C16-C34)		E601	250	μg/L	7950 μg/L	91.5	70.0	130	
F4 (C34-C50)		E601	250	μg/L	4220 μg/L	93.1	70.0	130	

Page : 12 of 13 Work Order : YL2400666

Client : Stantec Consulting Ltd.

Project : 123515016



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	• •	amples) may be easjeet to blas. ND	-				Matrix Spike	(MS) Report		
					Spil	ke	Recovery (%)	Recovery	Limits (%)	
Laboratory sample	ID Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nut	rients (QCLot: 1499399									
FJ2401691-002	Anonymous	Chloride	16887-00-6	E235.CI	102 mg/L	100 mg/L	102	75.0	125	
Anions and Nut	rients (QCLot: 1499401)								
FJ2401691-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.53 mg/L	2.5 mg/L	101	75.0	125	
Anions and Nut	rients (QCLot: 1499402	2)								
FJ2401691-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.503 mg/L	0.5 mg/L	101	75.0	125	
Anions and Nut	rients (QCLot: 1499403	9)								
FJ2401691-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.8 mg/L	100 mg/L	98.8	75.0	125	
Anions and Nut	rients (QCLot: 1499413									
FJ2401691-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0289 mg/L	0.03 mg/L	96.4	70.0	130	
Anions and Nut	rients (QCLot: 1499577									
VA24B3869-004	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0534 mg/L	0.05 mg/L	107	70.0	130	
Anions and Nut	rients (QCLot: 1500899									
VA24B3582-009	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.125 mg/L	0.1 mg/L	125	75.0	125	
Organic / Inorga	nic Carbon (QCLot: 15	, ,								
CG2408017-001	Anonymous	Carbon, total organic [TOC]		E355-L	5.26 mg/L	5 mg/L	105	70.0	130	
Total Metals (Q	CLot: 1498144)									
FJ2401681-005	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L		ND	70.0	130	
		Antimony, total	7440-36-0	E420	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	
ľ					0.0193 Hig/L	0.029, 2	00.1			
		Arsenic, total	7440-38-2	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	
		Arsenic, total Barium, total	7440-38-2 7440-39-3	E420 E420		-		70.0 70.0		
		· ·			0.0206 mg/L	0.02 mg/L	103		130	
		Barium, total	7440-39-3	E420	0.0206 mg/L ND mg/L	0.02 mg/L 	103 ND	70.0	130 130	
		Barium, total Beryllium, total	7440-39-3 7440-41-7	E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L	0.02 mg/L 0.04 mg/L	103 ND 102	70.0 70.0	130 130 130	
		Barium, total Beryllium, total Bismuth, total	7440-39-3 7440-41-7 7440-69-9	E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L	103 ND 102 98.3	70.0 70.0 70.0	130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8	E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L	103 ND 102 98.3 98.2	70.0 70.0 70.0 70.0	130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9	E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L 0.00393 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L	103 ND 102 98.3 98.2 98.2	70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2	E420 E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L 0.00393 mg/L ND mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L	103 ND 102 98.3 98.2 98.2 ND	70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2	E420 E420 E420 E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L 0.01 mg/L 0.04 mg/L 0.04 mg/L	103 ND 102 98.3 98.2 98.2 ND 100 98.8	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L	103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5	70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 0.0190 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L	103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6	E420 E420 E420 E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 1.72 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L 0.02 mg/L 2 mg/L	103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5 95.1	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1	E420 E420 E420 E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 0.0190 mg/L 1.72 mg/L 0.0190 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.10 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L	103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5 95.1 86.2 95.3	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total Lithium, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-93-2	E420 E420 E420 E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 0.0190 mg/L 1.72 mg/L 0.0190 mg/L 0.0190 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.10 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 1.002 mg/L 0.01 mg/L 0.01 mg/L	103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5 95.1 86.2 95.3 99.1	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1	E420 E420 E420 E420 E420 E420 E420 E420	0.0206 mg/L ND mg/L 0.0407 mg/L 0.00983 mg/L 0.0098 mg/L 0.00393 mg/L ND mg/L 0.0100 mg/L 0.0395 mg/L 0.0195 mg/L 0.0190 mg/L 1.72 mg/L 0.0190 mg/L	0.02 mg/L 0.04 mg/L 0.01 mg/L 0.10 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L	103 ND 102 98.3 98.2 98.2 ND 100 98.8 97.5 95.1 86.2 95.3	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	

Page : 13 of 13 Work Order : YL2400666

Client : Stantec Consulting Ltd.



Sub-Matrix: Water							Matrix Spik	re (MS) Report		
					Spi	ke	Recovery (%)	Recovery	Limits (%)	
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
otal Metals (QC	Lot: 1498144) - cont	inued								
FJ2401681-005	Anonymous	Nickel, total	7440-02-0	E420	0.0387 mg/L	0.04 mg/L	96.7	70.0	130	
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	
		Potassium, total	7440-09-7	E420	ND mg/L		ND	70.0	130	
		Rubidium, total	7440-17-7	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	
		Selenium, total	7782-49-2	E420	0.0402 mg/L	0.04 mg/L	101	70.0	130	
		Silicon, total	7440-21-3	E420	9.39 mg/L	10 mg/L	93.9	70.0	130	
		Silver, total	7440-22-4	E420	0.00390 mg/L	0.004 mg/L	97.4	70.0	130	
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130	
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130	
		Sulfur, total	7704-34-9	E420	ND mg/L		ND	70.0	130	
		Tellurium, total	13494-80-9	E420	0.0396 mg/L	0.04 mg/L	98.9	70.0	130	
		Thallium, total	7440-28-0	E420	0.00377 mg/L	0.004 mg/L	94.4	70.0	130	
		Thorium, total	7440-29-1	E420	0.0182 mg/L	0.02 mg/L	90.9	70.0	130	
		Tin, total	7440-31-5	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	
		Titanium, total	7440-32-6	E420	0.0391 mg/L	0.04 mg/L	97.9	70.0	130	
		Tungsten, total	7440-33-7	E420	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	
		Uranium, total	7440-61-1	E420	0.00370 mg/L	0.004 mg/L	92.4	70.0	130	
		Vanadium, total	7440-62-2	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	
		Zinc, total	7440-66-6	E420	0.394 mg/L	0.4 mg/L	98.4	70.0	130	
		Zirconium, total	7440-67-7	E420	0.0400 mg/L	0.04 mg/L	100.0	70.0	130	
otal Metals (QC	Lot: 1502049)									
VA24B3720-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000957 mg/L	0 mg/L	95.7	70.0	130	
otal Metals (QC	Lot: 1502050)									
YL2400666-004	GLG-2024-00001-020	Mercury, total	7439-97-6	E508	0.0000894 mg/L	0 mg/L	89.4	70.0	130	
issolved Metals	(QCLot: 1498545)									
VA24B3588-002	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L		ND	70.0	130	
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130	
		Potassium, dissolved	7440-09-7	E421	75.4 mg/L	80 mg/L	94.2	70.0	130	
		Sodium, dissolved	7440-23-5	E421	ND mg/L		ND	70.0	130	
olatile Organic C	Compounds (QCLot	: 1501390)								
CG2408136-001	Anonymous	Benzene	71-43-2	E611A	93.6 μg/L	100 μg/L	93.6	70.0	130	
		Ethylbenzene	100-41-4	E611A	92.9 μg/L	100 μg/L	92.9	70.0	130	
		Toluene	108-88-3	E611A	92.2 μg/L	100 μg/L	92.2	70.0	130	
		Xylene, m+p-	179601-23-1	E611A	185 μg/L	200 μg/L	92.5	70.0	130	
		Xylene, o-	95-47-6	E611A	92.5 μg/L	100 μg/L	92.5	70.0	130	



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here

COC Number: 14 -

D

Company: Stantec Consulting Ltd.	Select Report Format	- Pycer		3							Variation.	1	Girdain	A	design
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	Criteria on Report - provide details below if box checked	× Ch		_,	ergency	(1-2 bus.	days if i	eceived	by 3pm	100%	surchary	ge - cor	itact AL	S to con	Emergency (1-2 bus, days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
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Phone: (204) 509-9864	Email 1 or Fax natalie.normar	stantec.com		유	e Requ	ired for	EZ.E	ř.						1	
(867) 920-2882		steve.hannington@stantec.com						Ana	ysis F	Analysis Request	7	1	1		
Involce To Same as Report To 「Yes F No		nvoice Distribution		Indi	Indicate Filtered (F), Preserved (F) or Filtered and Preserved (F/P) below	red (F), I	reserve	d (P) or	Filtered	and Pre	served	(F/P) b	elow		
Copy of Invoice with Report ☐ Yes ☑ No	Select Invoice Distribution:	EMAIL MAIL	FAX				_	-	-	+					
Company: Stantec Consulting Ltd.	es			1	1	1	4	4	+	-	1				
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Project Information		Oil and Gas Required Fields (client use)						_	-						ners
ALS Quote #: YL24-STAC100-003	Approver ID:	Cost Center:							-						ntai
	GL Account:	Routing Code:		NP					-						Co
FF.	Activity Code:														er of
LSD:	Location:			-		E	_	-	=	-		Ε			umbe
ALS Lab Work Order # (lab use only)	ALS Contact:	Sampler:					≼ ⊞	low	Environmen Yellowknife	Environmental Division Yellowknife	Divis	ion			N
ALS Sample # Sample Identification and/or Coordinates (This description will appear on the report)	oordinates Date the report) (dd-rumm-yy)	Time (fixmm)	Sample Type	Groundy				≤₹	Nog	YL2400666	OG eren	6			
S10 - 1000 - 1000 - 015	13-100- 24	09:52	water	,										17	7
910 - 1000 - hear - 010	13-UUN- 24	10:87	Water	1					ì	Ť				I	7
GLG-2084- 60001 - 009	13.JW. 24	11:52	wester	<					Š	Ś	À				7
100	13- JNJ - 24	11:52	Water	<	3				4	Š	*				7
HIO - 10000 - 1806 - 579	13- NOI- 24	12:38	water	1			1			700				1	7
C10- 10000 - PEOE - 979	13- JUN - 24	13:33	water	<			1 9	901018	1 2	elephone + 1 ber ora seed	- 5086		1		7
												:	94.7		
							1	+	+						
Drinking Water (DW) Samples (client use)	Special Instructions / Specify Criteria to add on report (client Use)	ld on report (client Use)			on	AMPLE	CON	VOLLIC	ASF	SAMPLE CONDITION AS RECEIVED (lab use only)	/ED (12	ab use	only		
Are samples taken from a Boundaled DMO colomo		10 00 00 00 00 00 00 00 00 00 00 00 00 0	21	Frozen					F Obs	SIF Observations		Yes		S	
Are samples taken from a Regulated DW System?	d metals field filtured, Not preserved	eserved	೧೯	Ice packs Yes Cooling Initiated	Yes		8	0	ustody	Custody seal intact		Yes		8	
Are samples for human drinking water use?				INITIAL COOLER TEMPERATURES °C	OLERT	MPER	TURES	c		FINAL	FINAL COOLER TEMPERATURES °C	SR TEN	IPERA)	TURES	ő
SHIPMENT RELEASE (client use)	INITIAL SHIPMENT RECEPTION (lab use only)	EPTION (lab use only)		1.1	Γ		SHB	Ž –	RECE	FINAL SHIPMENT RECEPTION (Jab use only)	46/1	600	L		
Released by: Date: Time:	Received by:	Date: 13/24 Tm	5	Received by:	*	5	0000	WITTH.	D	Date:	A CIGIL	Time:	(Ku		
CK PAGE FOR ALS LOCATIONS AND SAMPLIN	×	WHITE - LABORATORY COPY	5	YELLOW - CLIENT COPY	TOOP			13		900		d			

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. WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Work Order : YL2400673

Client : Stantec Consulting Ltd.

Contact : Natalie Normandeau Address

: 4910 53 Street

Telephone

Project : 123515016

PO C-O-C number

Sampler Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received : 5 No. of samples analysed : 5 Page : 1 of 6

> Laboratory : ALS Environmental - Yellowknife

Account Manager : Oliver Gregg

Address : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 3T3

Telephone : 1 867 445 7143 Date Samples Received : 14-Jun-2024 16:12

Date Analysis Commenced : 19-Jun-2024

Issue Date : 24-Jun-2024 11:38

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
- Surrogate Control Limits

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	
Cynthia Bauer	Organic Supervisor	Organics, Calgary, Alberta	
Erin Sanchez		Metals, Burnaby, British Columbia	
Hannah Phung	Lab Assistant	Inorganics, Calgary, Alberta	
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta	
Kevin Baxter	Team Leader - Inorganics	Inorganics, Calgary, Alberta	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia	
Maqsood UlHassan	Laboratory Analyst	Organics, Calgary, Alberta	
Monica Ko	Lab Assistant	Inorganics, Burnaby, British Columbia	
Nguyen Tran	Laboratory Analyst	Organics, Calgary, Alberta	
Owen Cheng		Metals, Burnaby, British Columbia	

Page : 2 of 6

Work Order : YL2400673

Client : Stantec Consulting Ltd.

Project : 123515016



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less 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.

Sample Comments

Sample	Client Id	Comment
YL2400673-005	GLG-2024-00001-005	Sample(s) 005: Insufficient Sample for [BTEX/F1-F4] analysis. The requested analysis cannot be performed.

Qualifiers

Qualifier	Description
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).

>: greater than.

Page 3 of 6 Work Order YL2400673

Stantec Consulting Ltd. 123515016 Client

Project



Analytical Results

Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					1-010	1-011	1-012	1-013	1-005
			·	ling date / time	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400673-001	YL2400673-002	YL2400673-003	YL2400673-004	YL2400673-005
					Result	Result	Result	Result	Result
Physical Tests		J=000044							
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	41.7	41.7	48.7	41.6	290
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	41.7	41.7	48.7	41.6	290
Conductivity		E100/VA	2.0	μS/cm	105	104	122	103	1200
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	45.4	45.0	46.1	43.9	613
рН		E108/VA	0.10	pH units	7.90	7.91	8.22	7.90	8.14
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	60.3	53.7	58.3	59.7	908
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	<1.0	<1.0	1.4	<1.0	12.8
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	42.5	42.2	42.6	41.9	654
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7		0.0050	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	0.105
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	1.45	1.46	1.49	1.46	4.03
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	<0.0050	<0.0050	<0.0050	0.0145	0.181
Nitrate (as NO3)	14797-55-8	A EC235.NO3A/ VA	0.010	mg/L	<0.022	<0.022	<0.022	0.064	0.801
Nitrate + Nitrite (as N)		EC235.N+N/V A	0.0050	mg/L	<0.0051	<0.0051	<0.0051	0.0145	0.181
Nitrite (as N)		E235.NO2-L/V A	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050 DLDS
Nitrite (as NO2)		EC235.NO2A/ VA	0.0030	mg/L	<0.0033	<0.0033	<0.0033	<0.0033	<0.0164
Phosphate, ortho-, dissolved (as P)		E378-U/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total		E372-U/CG	0.0020	mg/L	0.0044	0.0045	0.0073	0.0061	0.0388
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	8.54	8.12	9.92	8.07	400
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/CG	0.50	mg/L	3.32	2.81	2.93	2.57	4.75
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0092	0.0082	0.0309	0.0070	0.0118

4 of 6 YL2400673 Page Work Order

Stantec Consulting Ltd. 123515016 Client

Project

Analytical Results

Sub-Matrix: Water		Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				1-010	1-011	1-012	1-013	1-005
		Client samp	ling date / time	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400673-001	YL2400673-002	YL2400673-003	YL2400673-004	YL2400673-005
				Result	Result	Result	Result	Result
Total Metals								
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	0.00068
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00030	0.00026	0.00029	0.00028	0.00760
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.00462	0.00431	0.00514	0.00454	0.0298
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	0.050
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000265
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	12.8	12.8	12.9	12.3	207
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	0.00648
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00056	0.00051	0.00067	0.00052	0.00072
Iron, total	7439-89-6 E420/VA	0.010	mg/L	<0.010	<0.010	0.033	<0.010	5.18
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000233
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0019	0.0019	0.0020	0.0019	0.0027
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	3.27	3.16	3.38	3.21	23.4
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.00232	0.00243	0.00445	0.00228	0.944
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000089	0.000082	0.000080	0.000084	0.00144
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	<0.00050	<0.00050	0.00052	<0.00050	0.00895
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	0.051
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.51	1.50	1.54	1.51	10.9
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00197	0.00188	0.00201	0.00196	0.00140
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000204
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.22	0.19	0.23	0.19	6.22
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	2.49	2.45	2.60	2.47	30.2
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.0448	0.0468	0.0468	0.0433	0.958
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	2.94	2.87	3.49	2.89	151
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
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Stantec Consulting Ltd. 123515016 Client

Project

Analytical Results

Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					1-010	1-011	1-012	1-013	1-005
			Client samp	ing date / time	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400673-001	YL2400673-002	YL2400673-003	YL2400673-004	YL2400673-005
					Result	Result	Result	Result	Result
Total Metals									
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000017
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L	0.00037	0.00036	0.00126	<0.00030	<0.00060 DLM
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000092	0.000092	0.000107	0.000093	0.00379
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00040 DLM
Dissolved Metals									
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	12.1	12.0	12.0	12.0	222
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	2.98	2.96	3.08	2.90	24.1
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	1.50	1.51	1.50	1.48	10.8
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	2.31	2.34	2.35	2.27	29.9
Dissolved metals filtration location		EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [BTEXS+MTBE]									
Benzene	71-43-2	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	
Toluene	108-88-3	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	
Xylene, m+p-	179601-23-1		0.50	μg/L	<0.50	<0.50	<0.50	<0.50	
Xylene, o-		E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	
Xylenes, total	1330-20-7	E611A/CG	0.75	μg/L	<0.75	<0.75	<0.75	<0.75	
BTEX, total		E611A/CG	1.2	μg/L	<1.2	<1.2	<1.2	<1.2	
Hydrocarbons									
F1 (C6-C10)		E581.F1/CG	100	μg/L	<100	<100	<100	<100	
F1-BTEX		EC580/CG	100	μg/L	<100	<100	<100	<100	
F2 (C10-C16)		E601/CG	100	μg/L	<100	<100	<100	<100	
F3 (C16-C34)		E601/CG	250	μg/L	<250	<250	<250	<250	
F4 (C34-C50)		E601/CG	250	μg/L	<250	<250	<250	<250	
Hydrocarbons, total (C6-C50)	n/a	EC581/CG	400	μg/L	<400	<400	<400	<400	

Page : 6 of 6

Work Order : YL2400673

Client : Stantec Consulting Ltd.

Project : 123515016

ALS

Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					1-010	1-011	1-012	1-013	1-005
			Client sampling date / time		14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00	14-Jun-2024 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400673-001	YL2400673-002	YL2400673-003	YL2400673-004	YL2400673-005
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	101	99.9	86.9	99.8	
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	104	79.7	73.8	101	
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	79.9	84.0	82.5	81.6	
Difluorobenzene, 1,4-	540-36-3	611A/CG	1.0	%	103	104	103	103	

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : **YL2400673** Page : 1 of 19

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address : 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 : 1 867 445 7143

 Project
 : 123515016
 Date Samples Received
 : 14-Jun-2024 16:12

PO : ---- Issue Date : 24-Jun-2024 11:38

C-O-C number : ---Sampler : ---Site :

Quote number :YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received :5
No. of samples analysed :5

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

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.

Page : 3 of 19 Work Order : YL2400673

Client : Stantec Consulting Ltd.

Project : 123515016



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					Ev	aluation: × =	Holding time excee	edance ; •	= Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00001-005	E298	14-Jun-2024	20-Jun-2024	28	6 days	✓	20-Jun-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00001-010	E298	14-Jun-2024	20-Jun-2024	28	6 days	✓	20-Jun-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										_
GLG-2024-00001-011	E298	14-Jun-2024	20-Jun-2024	28	6 days	✓	20-Jun-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)	5000	44 1 0004	00 1 0001			,		00.1		,
GLG-2024-00001-012	E298	14-Jun-2024	20-Jun-2024	28	6 days	✓	20-Jun-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)	E298	14-Jun-2024	00 1 0004		0.1	✓	00 1 0004	00.1	0.1	√
GLG-2024-00001-013	E298	14-Jun-2024	20-Jun-2024	28	6 days	•	20-Jun-2024	28 days	6 days	•
				days						
Anions and Nutrients : Chloride in Water by IC					1					
HDPE	E00E OI	44 1 2024	40 1 2024		C -l	✓	40 1 2024	00 4	C da	1
GLG-2024-00001-005	E235.Cl	14-Jun-2024	19-Jun-2024	28	5 days	•	19-Jun-2024	28 days	5 days	•
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-010	E235.CI	14-Jun-2024	19-Jun-2024	00	E days	√	19-Jun-2024	20 day:-	5 days	1
GLG-2024-00001-010	E235.CI	14-Juii-2024	19-Jun-2024	28	5 days	,	19-Jun-2024	28 days	o days	*
				days						

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Client : Stantec Consulting Ltd.

Project : 123515016

HDPE

GLG-2024-00001-005



Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	eparation			Analysis		
Container / Client Sample ID(s)		Camping Date	Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	7 Times Actual	Eval
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-011	E235.CI	14-Jun-2024	19-Jun-2024	28 days	5 days	✓	19-Jun-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-012	E235.CI	14-Jun-2024	19-Jun-2024	28 days	5 days	✓	19-Jun-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00001-013	E235.CI	14-Jun-2024	19-Jun-2024	28 days	5 days	✓	19-Jun-2024	28 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetr	y (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-005	E378-U	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	# EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetr	y (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-010	E378-U	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	* EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetr	y (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-011	E378-U	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	x EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetr	y (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-012	E378-U	14-Jun-2024	19-Jun-2024	3 days	5 days	# EHT	19-Jun-2024	3 days	5 days	x EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetr	y (Ultra Trace Level 0.001 mg/L)									
HDPE GLG-2024-00001-013	E378-U	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										

14-Jun-2024

19-Jun-2024

3 days 5 days

æ

EHT

19-Jun-2024

E235.NO3-L

æ

EHT

3 days 5 days

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Client : Stantec Consulting Ltd.



Matrix: Water						/aluation: × =	Holding time exce	edance ; •	✓ = Within	Holding Tin
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	g Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-010	E235.NO3-L	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	≭ EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-011	E235.NO3-L	14-Jun-2024	19-Jun-2024	3 days	5 days	x EHT	19-Jun-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)									'	
HDPE GLG-2024-00001-012	E235.NO3-L	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00001-013	E235.NO3-L	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)									'	
HDPE GLG-2024-00001-005	E235.NO2-L	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-010	E235.NO2-L	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-011	E235.NO2-L	14-Jun-2024	19-Jun-2024	3 days	5 days	* EHT	19-Jun-2024	3 days	5 days	≭ EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-012	E235.NO2-L	14-Jun-2024	19-Jun-2024	3 days	5 days	x EHT	19-Jun-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00001-013	E235.NO2-L	14-Jun-2024	19-Jun-2024	3 days	5 days	x EHT	19-Jun-2024	3 days	5 days	x EHT

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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi		valuation. • -		Analys	is	
Container / Client Sample ID(s)	Wictirod	Camping Bate	Preparation		g Times	Eval	Analysis Date		g Times	Eval
Somano: / Significant pio 12(c)			Date	Rec	Actual	Lvai	Analysis Date	Rec	Actual	Lvai
Anions and Nutrients : Sulfate in Water by IC			Date		11010101			1100	1100000	
HDPE										
GLG-2024-00001-005	E235.SO4	14-Jun-2024	19-Jun-2024	28	5 days	✓	19-Jun-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00001-010	E235.SO4	14-Jun-2024	19-Jun-2024	28	5 days	✓	19-Jun-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE	5005.004	44 1 0004	40 1 0004				40 1 0004	00.1		,
GLG-2024-00001-011	E235.SO4	14-Jun-2024	19-Jun-2024	28	5 days	✓	19-Jun-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE	E235.SO4	14-Jun-2024	19-Jun-2024	00	5 days	√	19-Jun-2024	28 days	E dovo	✓
GLG-2024-00001-012	E233.3U4	14-Juli-2024	19-Jun-2024	28	5 days	•	19-Jun-2024	20 days	5 days	•
				days						
Anions and Nutrients : Sulfate in Water by IC HDPE				I			I			
GLG-2024-00001-013	E235.SO4	14-Jun-2024	19-Jun-2024	28	5 days	√	19-Jun-2024	28 days	5 days	✓
010 2021 00001 010			.0 04 202 .	days				20 44,0	o dayo	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)				,-						
Amber glass total (sulfuric acid)										
GLG-2024-00001-005	E372-U	14-Jun-2024	20-Jun-2024	28	6 days	✓	21-Jun-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00001-010	E372-U	14-Jun-2024	20-Jun-2024	28	6 days	✓	21-Jun-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00001-011	E372-U	14-Jun-2024	20-Jun-2024	28	6 days	✓	21-Jun-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00001-012	E372-U	14-Jun-2024	20-Jun-2024	28	6 days	✓	21-Jun-2024	28 days	7 days	✓
				days						

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

Matrix: Water						raiuation. * =	Holding time exce	euance , •	- ٧٧١١١١١١	Holding Hill
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00001-013	E372-U	14-Jun-2024	20-Jun-2024	28	6 days	✓	21-Jun-2024	28 days	7 days	✓
				days						
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00001-005	E421	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00001-010	E421	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	✓
				days				days	•	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS								,		
HDPE - dissolved (lab preserved)										
GLG-2024-00001-011	E421	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	1
010 1011 00001 011				days	, -			days	, -	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS				uayo				aayo		
HDPE - dissolved (lab preserved)										
GLG-2024-00001-012	E421	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	√
010 2024 00001 012		11 0411 2021	10 0411 202 1	days	o dayo	Ť	20 0411 202 1	days	o dayo	
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS				1			I			
HDPE - dissolved (lab preserved) GLG-2024-00001-013	E421	14-Jun-2024	19-Jun-2024	180	5 davs	√	20-Jun-2024	180	6 days	√
GLG-2024-00001-013	L-72 1	14-0411-2024	13-3411-2024	days	Juays	,	20-3u11-202 4	days	0 days	•
				uays				uays		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00001-010	E581.F1	14-Jun-2024	19-Jun-2024	4.4	5 days	√	19-Jun-2024	14 days	5 days	√
GLG-2024-00001-010	E301.F1	14-Juli-2024	19-Ju11-2024	14	5 days	•	19-Juli-2024	14 days	o days	•
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)	F504.54	44 1 2004	40 1 0004		5.4		40 1 0004	44.1.	5 1	
GLG-2024-00001-011	E581.F1	14-Jun-2024	19-Jun-2024	14	5 days	✓	19-Jun-2024	14 days	5 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00001-012	E581.F1	14-Jun-2024	19-Jun-2024	14	5 days	✓	19-Jun-2024	14 days	5 days	✓
				days						

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Amber glass total (sulfuric acid)

GLG-2024-00001-012



Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	g Times Actual	Eval
lydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00001-013	E581.F1	14-Jun-2024	19-Jun-2024	14 days	5 days	✓	19-Jun-2024	14 days	5 days	✓
lydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00001-010	E601	14-Jun-2024	22-Jun-2024	14 days	8 days	✓	22-Jun-2024	40 days	0 days	✓
lydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00001-011	E601	14-Jun-2024	22-Jun-2024	14 days	8 days	✓	22-Jun-2024	40 days	0 days	✓
lydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00001-012	E601	14-Jun-2024	22-Jun-2024	14 days	8 days	✓	22-Jun-2024	40 days	0 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00001-013	E601	14-Jun-2024	22-Jun-2024	14 days	8 days	✓	22-Jun-2024	40 days	0 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Comb	ustion (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-005	E355-L	14-Jun-2024	20-Jun-2024	28 days	6 days	✓	20-Jun-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Comb	ustion (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-010	E355-L	14-Jun-2024	20-Jun-2024	28 days	6 days	✓	20-Jun-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Comb	ustion (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-011	E355-L	14-Jun-2024	20-Jun-2024	28 days	6 days	✓	20-Jun-2024	28 days	6 days	✓

14-Jun-2024

20-Jun-2024

6 days

28 days

E355-L

28 days 6 days

20-Jun-2024

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

Analyte Group : Analytical Method	Method	Sampling Date	Extraction / Preparation					Analys		
Container / Client Sample ID(s)			Preparation			Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00001-013	E355-L	14-Jun-2024	20-Jun-2024	28 days	6 days	✓	20-Jun-2024	28 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-005	E290	14-Jun-2024	19-Jun-2024	14 days	5 days	✓	20-Jun-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-010	E290	14-Jun-2024	19-Jun-2024	14 days	5 days	~	20-Jun-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-011	E290	14-Jun-2024	19-Jun-2024	14 days	5 days	1	20-Jun-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-012	E290	14-Jun-2024	19-Jun-2024	14 days	5 days	1	20-Jun-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00001-013	E290	14-Jun-2024	19-Jun-2024	14 days	5 days	1	20-Jun-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-005	E100	14-Jun-2024	19-Jun-2024	28 days	5 days	1	20-Jun-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-010	E100	14-Jun-2024	19-Jun-2024	28 days	5 days	✓	20-Jun-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-011	E100	14-Jun-2024	19-Jun-2024	28 days	5 days	✓	20-Jun-2024	28 days	6 days	✓

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Physical Tests : pH by Meter

GLG-2024-00001-012

Physical Tests : pH by Meter

GLG-2024-00001-013

GLG-2024-00001-005

GLG-2024-00001-010

Physical Tests : TDS by Gravimetry (Low Level)

Physical Tests : TDS by Gravimetry (Low Level)

HDPE

HDPE

HDPE

HDPE

Matrix: Water



Evaluation: **x** = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation		-	Analys	sis	
Container / Client Sample ID(s)		J 24g 2 4.00	Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-012	E100	14-Jun-2024	19-Jun-2024	28 days	5 days	✓	20-Jun-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00001-013	E100	14-Jun-2024	19-Jun-2024	28 days	5 days	✓	20-Jun-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-005	E108	14-Jun-2024	19-Jun-2024	0.25 hrs	123 hrs	* EHTR-FM	20-Jun-2024	0.25 hrs	145 hrs	* EHTR-FI
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-010	E108	14-Jun-2024	19-Jun-2024	0.25 hrs	123 hrs	* EHTR-FM	20-Jun-2024	0.25 hrs	145 hrs	# EHTR-FI
Physical Tests : pH by Meter										
HDPE GLG-2024-00001-011	E108	14-Jun-2024	19-Jun-2024	0.25 hrs	123 hrs	* EHTR-FM	20-Jun-2024	0.25 hrs	145 hrs	# EHTR-FI

14-Jun-2024

14-Jun-2024

14-Jun-2024

14-Jun-2024

19-Jun-2024

19-Jun-2024

123 hrs

123 hrs

0.25

hrs

0.25

hrs

E108

E108

E162-L

E162-L

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∕latrix: Water					Ev	/aluation: ≭ =	Holding time exce	edance ; •	✓ = Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00001-011	E162-L	14-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE	T									
GLG-2024-00001-012	E162-L	14-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00001-013	E162-L	14-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]	T									
GLG-2024-00001-005	E160-L	14-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00001-010	E160-L	14-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00001-011	E160-L	14-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00001-012	E160-L	14-Jun-2024					21-Jun-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00001-013	E160-L	14-Jun-2024					21-Jun-2024	7 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-005	E508	14-Jun-2024	22-Jun-2024	0 hrs	183 hrs	*	22-Jun-2024	0 hrs	183 hrs	æ
						UCP				UCP

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

wainx: water						uluution.	Holding time excee	oddiioo ,	* *************************************	riolaling rii
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analy		
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holdin	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-010	E508	14-Jun-2024	22-Jun-2024	0 hrs	183 hrs	sc .	22-Jun-2024	0 hrs	183 hrs	*
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-011	E508	14-Jun-2024	22-Jun-2024	0 hrs	183 hrs	*	22-Jun-2024	0 hrs	183 hrs	*
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-012	E508	14-Jun-2024	22-Jun-2024	0 hrs	183 hrs	*	22-Jun-2024	0 hrs	183 hrs	*
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE										
GLG-2024-00001-013	E508	14-Jun-2024	22-Jun-2024	0 hrs	183 hrs	*	22-Jun-2024	0 hrs	183 hrs	3¢
						UCP				UCP
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-005	E420	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-010	E420	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-011	E420	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-012	E420	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00001-013	E420	14-Jun-2024	19-Jun-2024	180	5 days	✓	20-Jun-2024	180	6 days	✓
	1	1		1	1 1			1 7 7	1 1	

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

Method	Sampling Date	Extraction / Preparation					Analys	Analysis				
		Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval			
		Date	Rec	Actual			Rec	Actual				
E611A	14-Jun-2024	19-Jun-2024	14	5 days	✓	19-Jun-2024	14 days	5 days	✓			
			days									
E611A	14-Jun-2024	19-Jun-2024	14	5 days	✓	19-Jun-2024	14 days	5 days	✓			
			days									
E611A	14-Jun-2024	19-Jun-2024	14	5 days	✓	19-Jun-2024	14 days	5 days	✓			
			days									
E611A	14-Jun-2024	19-Jun-2024	14	5 days	✓	19-Jun-2024	14 days	5 days	✓			
			days									
	E611A E611A	E611A 14-Jun-2024 E611A 14-Jun-2024 E611A 14-Jun-2024	E611A 14-Jun-2024 19-Jun-2024 E611A 14-Jun-2024 19-Jun-2024 E611A 14-Jun-2024 19-Jun-2024	Preparation Date Holding Rec E611A 14-Jun-2024 19-Jun-2024 14 days E611A 14-Jun-2024 19-Jun-2024 14 days E611A 14-Jun-2024 19-Jun-2024 14 days	Preparation Date Holding Times Rec Actual E611A 14-Jun-2024 19-Jun-2024 14 days 5 days days E611A 14-Jun-2024 19-Jun-2024 14 days 5 days days E611A 14-Jun-2024 19-Jun-2024 14 days 5 days days	Preparation Date Holding Times Rec Actual Eval E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ E611A 14-Jun-2024 19-Jun-2024 14 5 days ✓	Preparation Date Holding Times Rec Eval Analysis Date E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 E611A 14-Jun-2024 19-Jun-2024 14 5 days ✓ 19-Jun-2024	Preparation Date Holding Times Rec Eval Analysis Date Holding Rec E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 14 days E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 14 days E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 14 days E611A 14-Jun-2024 19-Jun-2024 14 5 days ✓ 19-Jun-2024 14 days	Preparation Date Holding Times Rec Actual Eval Analysis Date Holding Times Rec Actual Rec Actual E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 14 days 5 days E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 14 days 5 days E611A 14-Jun-2024 19-Jun-2024 14 days 5 days ✓ 19-Jun-2024 14 days 5 days E611A 14-Jun-2024 19-Jun-2024 14 5 days ✓ 19-Jun-2024 14 days 5 days			

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).

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

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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	ion: × = QC frequ	ency outside sp	ecification; ✓ =	QC frequency wit	hin specification		
Quality Control Sample Type			C	ount		Frequency (%)	1
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1502232	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1505171	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1501501	1	20	5.0	5.0	1
CCME PHC - F1 by Headspace GC-FID	E581.F1	1501502	1	4	25.0	5.0	√
Chloride in Water by IC	E235.CI	1502240	1	19	5.2	5.0	✓
Conductivity in Water	E100	1502230	1	19	5.2	5.0	√
Dissolved Metals in Water by CRC ICPMS	E421	1501734	1	7	14.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1502243	1	11	9.0	5.0	1
Nitrate in Water by IC (Low Level)	E235.NO3-L	1502237	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1502238	1	19	5.2	5.0	✓
pH by Meter	E108	1502231	1	20	5.0	5.0	√
Sulfate in Water by IC	E235.SO4	1502236	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1508204	1	5	20.0	5.0	1
Total Mercury in Water by CVAAS	E508	1508322	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1501368	2	18	11.1	5.0	√
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1505574	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503852	1	17	5.8	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1502232	1	18	5.5	5.0	1
Ammonia by Fluorescence	E298	1505171	1	20	5.0	5.0	<u>√</u>
BTEX by Headspace GC-MS	E611A	1501501	1	20	5.0	5.0	<u> </u>
CCME PHC - F1 by Headspace GC-FID	E581.F1	1501502	1	4	25.0	5.0	<u>√</u>
CCME PHCs - F2-F4 by GC-FID	E601	1508425	2	21	9.5	5.0	√
Chloride in Water by IC	E235.CI	1502240	1	19	5.2	5.0	✓
Conductivity in Water	E100	1502230	1	19	5.2	5.0	√
Dissolved Metals in Water by CRC ICPMS	E421	1501734	1	7	14.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1502243	1	11	9.0	5.0	<u>√</u>
Nitrate in Water by IC (Low Level)	E235.NO3-L	1502237	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1502238	1	19	5.2	5.0	✓
pH by Meter	E108	1502231	1	20	5.0	5.0	<u>√</u>
Sulfate in Water by IC	E235.SO4	1502236	1	19	5.2	5.0	√
TDS by Gravimetry (Low Level)	E162-L	1508204	1	5	20.0	5.0	√
Total Mercury in Water by CVAAS	E508	1508322	1	19	5.2	5.0	<u>√</u>
Total Metals in Water by CRC ICPMS	E420	1501368	1	18	5.5	5.0	<u>√</u>
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1505574	1	15	6.6	5.0	√
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503852	1	17	5.8	5.0	<u>√</u>

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Matrix: Water		Evaluati	ion: × = QC freque	ency outside sp	ecification; ✓ =	QC frequency wit	hin specification
Quality Control Sample Type				ount		Frequency (%))
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Control Samples (LCS) - Continued							
TSS by Gravimetry (Low Level)	E160-L	1508203	1	12	8.3	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1502232	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1505171	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1501501	1	20	5.0	5.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	1501502	1	4	25.0	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1508425	2	21	9.5	5.0	✓
Chloride in Water by IC	E235.CI	1502240	1	19	5.2	5.0	✓
Conductivity in Water	E100	1502230	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1501734	1	7	14.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1502243	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1502237	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1502238	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1502236	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1508204	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1508322	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1501368	2	18	11.1	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1505574	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503852	1	17	5.8	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1508203	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1505171	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1501501	1	20	5.0	5.0	✓
Chloride in Water by IC	E235.Cl	1502240	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1501734	1	7	14.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1502243	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1502237	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1502238	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1502236	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1508322	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1501368	2	18	11.1	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1505574	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503852	1	17	5.8	5.0	

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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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Vancouver			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Vancouver			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Vancouver			brackish waters) may produce a positive bias by this method. Alternate analysis
				methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			
Chloride in Water by IC	E235.CI	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Sulfate in Water by IC	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Alkalinity Species by Titration	E290	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Vancouver			

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Calgary	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Calgary	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Calgary	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
CCME PHC - F1 by Headspace GC-FID	E581.F1 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.

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Editor Part	Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Calgary Calg	CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
Calgary FPIC Unless Sulfill with the Reference Method for the Canada-Mide Standard for PPIC. Unless Sulfill with the Reference Method for the Canada-Mide Standard for PPIC. Unless Sulfill with the Canada-Mide Standard for the Canada-Mide Standard for the Sulfill with the Each Standard for PPIC. Unless Sulfill with the Each Standard for PPIC. Unless Sulfill with the Each Standard for PPIC. Unless Sulfill with the Sulfill with the Each Standard for the Sulfill with the Sulfill with the Each Standard for PPIC. Unless Sulfill with the Each Standard for PPIC. PPIC. PPIC. In Sulfill with the Each Standard for PPIC. Unless Sulfill with the Each Standard for PPIC.				1	
BTEX by Headspace GC-MS E611A Water ALS Environmental- Calgary Branched Hardness (Calculated) ALS Environmental- Vancouver APHA 2340B APHA 2340		ALS Environmental -			Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply
BEEX by Headspace GC-MS E611A Water ALS Environmental-Calgary Dissolved Hardness (Calculated) EC100 ALS Environmental-ALS Environmental-ALS Environmental-Vancouver Hardness (Calculated) EC100 ALS Environmental-Vancouver BEC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S N-VA ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC23S NO3A ALS Environmental-Vancouver EC23S N-VA ALS Environmental-Vanc		Calgary			·
BEEX by Headspace GC-MS ALS Environmental- Calgary EC10 Water ALS Environmental- Vanoouver BEC10A ALS Environmental- Vanoouver ALS Environmental- Vanoouver ALS Environmental- Vanoouver BEC10A ALS Environmental- Vanoouver ALS Environmental- Vanoouver ALS Environmental- Vanoouver ALS Environmental- Vanoouver BEC35N-N ALS Environmental- Vanoouver ALS Environmental- Vanoouver ALS Environmental- Vanoouver BEC40A ALS Environmental- Vanoouver ALS Environmental- Vanoouver BEC40B ALS Environmental- Vanoouver ALS Environmental- Vanoouver BEC40B ALS Environmental- Calgary BURST BEABSODO Market Bead and agated and the headspace autocated with Henry's low. Beadsopace autocated Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness' refers to the surface and Magnesium concentrations, expressed in CaCO3 equivalents." Total Hardness refers to the surface and Magnesium Concentrations, expressed in CaCO3 equivalents. Beadsopace and the Henry Silv. Beadsopace accounts					qualified, all required quality control criteria of the CCME PHC method have been met,
ALS Environmental Calgary Dissolved Hardness (Calculated) EC 100 ALS Environmental ALS Environmental Vancouver Hardness (Calculated) EC 100 ALS Environmental Vancouver Nitrate and Nitrite (as N) (Calculation) EC 235.N=N ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Vancouver ALS Environmental Calgary Water CAMP HC In Soil - Tier 11 Hardness (refer to the NO3 form by calculation. Nitrate (as N) converted to Nitrate (as NO3) EC 235.NO2A ALS Environmental Calgary Water ALS Environmental Calgary Water					including response factor and linearity requirements.
ALS Environmental-Calgary Because ALS Environmental-Calgary Because Also Environmental-Vancouver ALS	BTEX by Headspace GC-MS	E611A	Water	EPA 8260D (mod)	
Dissolved Hardness (Calculated) Calgary Dissolved Hardness (Calculated) ALS Environmental-Vancouver Hardness (Calculated) from Total CaMg EC100A ALS Environmental-Vancouver ALS Environmental-Vancouver ALS Environmental-Vancouver ALS Environmental-Vancouver ALS Environmental-Vancouver ALS Environmental-Vancouver Nitrate and Nitrite (as N) (Calculation) EC235.N+N ALS Environmental-Vancouver Nitrate (as N) converted to Nitrite (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrite (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrite (as NO3) EC3580 ALS Environmental-Vancouver Nitrate (as N) converted to Nitrite (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrite (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrite (as NO3) EC3580 ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC3580 Water CAME PHC in Soil - Tier 1 ALS Environmental-Calgary ECME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C54), and F4(C34-C50), F4G-sg is not used within this calculation due to overlap with other fractions.		ALS Environmental			· · · · · · · · · · · · · · · · · · ·
Dissolved Hardness (Calculated) EC100 ALS Environmental-Vanocuver APHA 2340B APHA 2340B Hardness (as CaC03), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaC03 equivalents. "Total Hardness' refers to the sum of Calcium and Magnesium concentrations, because it is a properly of water due to dissolved discoluted rations. ALS Environmental-Vanocuver Nitrate and Nitrite (as N) (Calculation) EC235.N+N ALS Environmental-Vanocuver Nitrate (as N) converted to Nitrite (as NO2) EC235.NQ2A ALS Environmental-Vanocuver Nitrate (as N) converted to Nitrate (as NO3) EC235.NQ3A ALS Environmental-Vanocuver Nitrate (as N) converted to Nitrate (as NO3) EC235.NQ3A ALS Environmental-Vanocuver ALS Environmental-Vanocuver Nitrate (as N) converted to Nitrate (as NO3) EC235.NQ3A ALS Environmental-Vanocuver ALS Environmental-Vanocuver ALS Environmental-Vanocuver Nitrate (as N) converted to Nitrate (as NO3) EC235.NQ3A ALS Environmental-Vanocuver ALS Environment					
ALS Environmental Vancouver Hardness (Calculated) from Total Ca/Mg EC100A Hardness (Calculated) from Total Ca/Mg EC100A ALS Environmental Vancouver ALS Environmental Vancouver Nitrate and Nitrite (as N) Converted to Nitrate (as NO3) EC235.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental Vancouver ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental Vancouver ALS Environmental Vancouver ALS Environmental Vancouver ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental Vancouver A	Dissolved Hardness (Calculated)	0 7	Water	ΔΡΗΔ 23/10Β	
Hardness (Calculated) from Total CalMg EC100A ALS Environmental-Vancouver Nitrate and Nitrite (as N) Converted to Nitrate (as NO2) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental-Vancouver ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental-Vancouver ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO3A ALS Environmental-Vancouver ALS Environmental-Vanco	Dissolved Hardriess (Calculated)	EC100	vvalei	AF IIA 2340B	` "
Hardness (Calculated) from Total Cal/Mg EC100A ALS Environmental-Vancouver Nitrate and Nitrite (as N) (Calculation) EC235.N+N ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO2A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO3A ALS Environmental-Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO3A ALS Environmental-Vancouver ALS Environmental		ALS Environmental -			to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially
Hardness (Calculated) from Total Ca/Mg EC100A ALS Environmental Vancouver Nitrate and Nitrite (as N) (Calculation) EC235.N>N Rate Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO2) EC35.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO3A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO3A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO3A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC3680 Water Calculation Nitrate (as N) converted to Nitrate (as NO3) EC3680 Water CAME PHC in Soil - Tier thy Comparable of Silence and Xylenes (BTEX). Sum F1 to F4 (C6-C50) EC5691 ALS Environmental Calgary CCME PHC in Soil - Tier thy Core PhC in Soil - Tier thy Core Physical Silence and Xylenes (BTEX). Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(G16-C34), and F4(G34-C50), F4G-sg is not used within this calculation due to cverage with other fractions.		Vancouver			
ALS Environmental Vancouver Nitrate and Nitrite (as N) (Calculation) EC235.N+N ALS Environmental Vancouver Nitrate and Nitrite (as N) (Calculation) EC235.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrite (as NO2) EC235.NO2A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC356.NO3A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC356.NO3A ALS Environmental Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC356.NO3A ALS Environmental Vancouver EC580 ALS Environmental Vancouver EC580 ALS Environmental Vancouver ALS Environmental Calgary EC581 ALS Environmental Calgary EC581 ALS Environmental Calgary Note of the NO3 form by calculation. EC681 ALS Environmental Calgary Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.					· ·
ALS Environmental - Vancouver ALS Environmental - Vancouver ALS Environmental - Vancouver Nitrate and Nitrite (as N) (Calculation) EC235.N+N ALS Environmental - Vancouver Nitrate (as N) converted to Nitrite (as NO2) EC235.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrite (as NO3) EC235.NO3A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO3A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO3A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C8-C50) is the sum of CCME Fractions F1(C8-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.	Hardness (Calculated) from Total Ca/Mg	EC100A	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and
ALS Environmental Vancouver F1-BTEX EC890 Water ALS Environmental - Calgary Water ALS Environmental - Vancouver ALS Environmental - Vancouver ALS Environmental - Vancouver ALS Environmental - Vancouver F1-BTEX EC890 Water ALS Environmental - Calgary Water ALS Environmental - Vancouver ALS Envi					· · · · · · · · · · · · · · · · · · ·
ALS Environmental Vancouver F1-BTEX EC850 Mater ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC860 ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC880 ALS Environmental - Vancouver A		ALS Environmental -			to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially
Property of water due to dissolved divalent actions. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters. Nitrate and Nitrite (as N) (Calculation) EC235.N+N ALS Environmental - Vancouver Nitrate (as N) converted to Nitrite (as NO2) EC235.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver ALS Environmental - Vancouver EC35.NO3A ALS Environmental - Vancouver ALS Environmental - Vancouver EC580 ALS Environmental - Vancouver EC580 ALS Environmental - Vancouver ALS Environmental - Vancouver EC580 ALS Environmental - Vancouver ALS Environmental - Vancouver EC580 ALS Environmental - Vancouver ALS Environmental - Vancouver EC580 ALS Environmental - Vancouver EC580 ALS Environmental - Vancouver ALS Environmental - Vancouver EC580 ALS Environmental - Vancouver EC581 ALS Environmental - Vancouver A		Vancouver			calculated from dissolved Calcium and Magnesium concentrations, because it is a
Nitrate and Nitrite (as N) (Calculation) EC235.N+N ALS Environmental - Vancouver Nitrate (as N) converted to Nitrite (as NO2) EC235.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC35.NO2A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Water CCME PHC in Soil - Tier 11 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.					· ·
ALS Environmental - Vancouver Nitrite (as N) converted to Nitrite (as NO2) EC35,NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235,NO3A ALS Environmental - Vancouver ALS Environmental - Calgary Sum F1 to F4 (C6-C50) EC581 ALS Environmental - Calgary Nitrate (as N). Nitrite by IC measured as N is converted to the NO3 form by calculation. Nitrate by IC measured as N is converted to the NO3 form by calculation. F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX). Sum F1 to F4 (C6-C50) EC581 ALS Environmental - Calgary Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.					normally comparable to Dissolved Hardness in non-turbid waters.
ALS Environmental - Vancouver Nitrite (as N) converted to Nitrite (as NO2) EC235.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Water CCME PHC in Soil - Tier 1	Nitrate and Nitrite (as N) (Calculation)	EC235.N+N	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as
Nitrite (as N) converted to Nitrite (as NO2) EC235.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Sum F1 to F4 (C6-C50) EC581 ALS Environmental - Calgary ALS Environmental - Calgary Sum F2 to F4 (C6-C50) EC35.NO2A Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.					N) + Nitrate (as N).
Nitrite (as N) converted to Nitrite (as NO2) EC235.NO2A ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Water CME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.		ALS Environmental -			
ALS Environmental - Vancouver Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Sum F1 to F4 (C6-C50) ALS Environmental - Calgary Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.		Vancouver			
Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Sum F1 to F4 (C6-C50) EC581 ALS Environmental - Calgary Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.	Nitrite (as N) converted to Nitrite (as NO2)	EC235.NO2A	Water	Calculation	Nitrite by IC measured as N is converted to the NO2 form by calculation.
Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Sum F1 to F4 (C6-C50) EC581 ALS Environmental - Calgary Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.		ALS Environmental			
Nitrate (as N) converted to Nitrate (as NO3) EC235.NO3A ALS Environmental - Vancouver F1-BTEX EC580 ALS Environmental - Calgary Sum F1 to F4 (C6-C50) EC581 ALS Environmental - Calgary Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.					
Vancouver F1-BTEX EC580 ALS Environmental - Calgary Sum F1 to F4 (C6-C50) ALS Environmental - Calgary Water CCME PHC in Soil - Tier thylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.	Nitrate (as N) converted to Nitrate (as NO3)		Water	Calculation	Nitrate by IC measured as N is converted to the NO3 form by calculation.
Vancouver F1-BTEX EC580 ALS Environmental - Calgary Sum F1 to F4 (C6-C50) ALS Environmental - Calgary Water CCME PHC in Soil - Tier thylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene ethylbenzene and xylenes (BTEX). F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.					
F1-BTEX EC580 ALS Environmental - Calgary Sum F1 to F4 (C6-C50) ALS Environmental - Calgary Water CCME PHC in Soil - Tier 1 P1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX). Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.		ALS Environmental -			
ALS Environmental - Calgary Sum F1 to F4 (C6-C50) EC581 Water Calgary Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.		Vancouver			
ALS Environmental - Calgary Sum F1 to F4 (C6-C50) EC581 Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.	F1-BTEX	EC580	Water	CCME PHC in Soil - Tier	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene,
Calgary Sum F1 to F4 (C6-C50) EC581 Water CCME PHC in Soil - Tier 1 F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.				1	ethylbenzene and xylenes (BTEX).
Sum F1 to F4 (C6-C50) EC581 Water CCME PHC in Soil - Tier 1 Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16) F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.		ALS Environmental -			
ALS Environmental - Calgary 1 F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.		Calgary			
ALS Environmental - overlap with other fractions. Calgary	Sum F1 to F4 (C6-C50)	EC581	Water	CCME PHC in Soil - Tier	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16),
Calgary				1	F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to
		ALS Environmental -			overlap with other fractions.
Preparation Methods Method / Lab Matrix Method Reference Method Descriptions		Calgary			
	Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

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Client : Stantec Consulting Ltd.



Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALS Environmental -			
	Calgary			
Preparation for Total Organic Carbon by	EP355	Water		Preparation for Total Organic Carbon by Combustion
Combustion				
	ALS Environmental -			
	Calgary			
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental -			
	Calgary			
Dissolved Metals Water Filtration	EP421	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental -			
	Vancouver			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the
	ALS Environmental -			GC/MS-FID system.
	Calgary			,
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
	ALS Environmental -			
	Calgary			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order : **YL2400673** Page : 1 of 13

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau : Oliver Gregg

Address : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone :1 867 445 7143

Date Samples Received :14-Jun-2024 16:12

Labaratan Danartan

Date Analysis Commenced : 19-Jun-2024

Issue Date : 24-Jun-2024 11:38

Address :4910 53 Street

Yellowknife NT Canada X1A 2P4
Telephone :----

Project : 123515016

PO : ----C-O-C number : ----

Sampler : --

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

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.

Signatories	Position	Laboratory Department	
Cynthia Bauer	Organic Supervisor	Calgary Organics, Calgary, Alberta	
Erin Sanchez		Vancouver Metals, Burnaby, British Columbia	
Hannah Phung	Lab Assistant	Calgary Inorganics, Calgary, Alberta	
Harpreet Chawla	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta	
Kevin Baxter	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia	
Maqsood UIHassan	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Monica Ko	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia	
Nguyen Tran	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Owen Cheng		Vancouver Metals, Burnaby, British Columbia	

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Client : Stantec Consulting Ltd.

Project : 123515016



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.

Page : 3 of 13 Work Order : YL2400673

Client : Stantec Consulting Ltd.

Project : 123515016



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							Labora	ntory Duplicate (D	UP) 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: 1502230)										
VA24B4156-002	Anonymous	Conductivity		E100	2.0	μS/cm	1280	1270	0.313%	10%	
Physical Tests (QC	Lot: 1502231)										
VA24B4156-002	Anonymous	рН		E108	0.10	pH units	8.23	8.23	0.00%	4%	
Physical Tests (QC	Lot: 1502232)										
VA24B4156-002	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	88.6	87.2	1.61%	200%	
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, phenolphthalein (as		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	
		CaCO3) Alkalinity, total (as CaCO3)		E290	1.0	mg/L	88.6	87.2	1.61%	20%	
Dhysical Tests (OC	1 of: 4500204)	Tanaman, salah (ali bala an)				3					
Physical Tests (QC YL2400673-001	GLG-2024-00001-010	Solids, total dissolved [TDS]		E162-L	10.0	mg/L	60.3	56.7	3.7	Diff <2x LOR	
Anions and Nutrien	its (QC Lot: 1502236)										
VA24B4087-021	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	14.6	14.5	0.0794%	20%	
Anions and Nutrien	ts (QC Lot: 1502237)										
VA24B4087-021	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0910	0.0921	1.21%	20%	
Anions and Nutrien	ts (QC Lot: 1502238)										
VA24B4087-021	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0025	0.0024	0.00005	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1502240)										
VA24B4087-021	Anonymous	Chloride	16887-00-6	E235.CI	0.50	mg/L	1.77	1.76	0.010	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1502243)										
VA24B4193-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1503852)										
VA24B3865-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	0.158	0.146	7.70%	20%	
Anions and Nutrien	ts (QC Lot: 1505171)										
CG2408208-005	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0500	mg/L	1.58	1.58	0.120%	20%	
Organic / Inorganic	Carbon (QC Lot: 1505	574)									
VA24B3798-008	Anonymous	Carbon, total organic [TOC]		E355-L	0.50	mg/L	15.2	13.1	15.2%	20%	
Total Metals (QC L	ot: 1501368)										
YL2400674-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0324	0.0330	1.96%	20%	

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Client : Stantec Consulting Ltd.



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	Qualifie
Total Metals (QC Lo	ot: 1501368) - continued										
YL2400674-001	Anonymous	Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00097	0.00099	0.00001	Diff <2x LOR	
YL2400674-001	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00940	0.00948	0.782%	20%	
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.109	0.108	1.50%	20%	
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00812	0.00834	2.68%	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	0.017	0.017	0.0003	Diff <2x LOR	
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000061	0.0000070	0.0000009	Diff <2x LOR	
		Calcium, total	7440-70-2	E420	0.050	mg/L	20.0	21.2	5.74%	20%	
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000011	0.000011	0.00000004	Diff <2x LOR	
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00018	0.00018	0.000002	Diff <2x LOR	
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00602	0.00609	1.22%	20%	
		Iron, total	7439-89-6	E420	0.010	mg/L	0.124	0.127	1.92%	20%	
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000240	0.000242	0.000002	Diff <2x LOR	
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0035	0.0036	0.0001	Diff <2x LOR	
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	6.01	5.92	1.41%	20%	
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0161	0.0155	3.78%	20%	
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000948	0.000984	3.74%	20%	
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00169	0.00167	0.00002	Diff <2x LOR	
		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	1.64	1.65	1.07%	20%	
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00308	0.00292	5.25%	20%	
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000070	0.000067	0.000003	Diff <2x LOR	
		Silicon, total	7440-21-3	E420	0.10	mg/L	0.31	0.44	0.13	Diff <2x LOR	
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000017	0.000018	0.0000008	Diff <2x LOR	
		Sodium, total	7440-23-5	E420	0.050	mg/L	5.16	4.98	3.46%	20%	
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0864	0.0864	0.0268%	20%	
		Sulfur, total	7704-34-9	E420	0.50	mg/L	4.56	4.67	0.11	Diff <2x LOR	
		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	<0.000010	<0.000010	0	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	

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water							Labora	tory Duplicate (D	UP) 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 L	ot: 1501368) - continued										
YL2400674-001	Anonymous	Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000264	0.000272	3.14%	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	<0.00020	<0.00020	0	Diff <2x LOR	
Total Metals (QC L	ot: 1508322)										
FJ2401695-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
Dissolved Metals (QC Lot: 1501734)										
FJ2401696-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.050	mg/L	88.3	87.3	1.13%	20%	
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	17.0	17.3	1.54%	20%	
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.54	1.58	2.62%	20%	
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	34.3	35.4	3.12%	20%	
Volatile Organic Co	mpounds (QC Lot: 1501	501)									
EO2404782-001	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Toluene	108-88-3	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	<0.40	<0.40	0	Diff <2x LOR	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	<0.30	<0.30	0	Diff <2x LOR	
Hydrocarbons (QC	Lot: 1501502)										
YL2400673-001	GLG-2024-00001-010	F1 (C6-C10)		E581.F1	100	μg/L	<100	<100	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

Project : 123515016



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

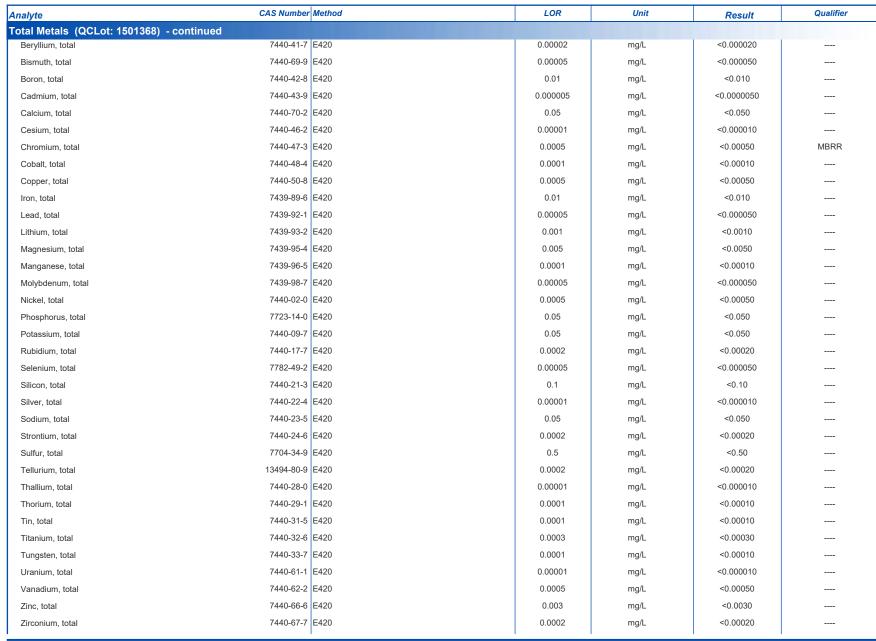
Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1502230)					
Conductivity	E100	1	μS/cm	<1.0	
Physical Tests (QCLot: 1502232)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
hysical Tests (QCLot: 1508203)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
hysical Tests (QCLot: 1508204)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
nions and Nutrients (QCLot: 1502236)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
nions and Nutrients (QCLot: 1502237)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
nions and Nutrients (QCLot: 1502238)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1502240)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
nions and Nutrients (QCLot: 1502243)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1503852)					
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	<0.0020	
nions and Nutrients (QCLot: 1505171)					
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	<0.0050	
rganic / Inorganic Carbon (QCLot: 1505	574)				
Carbon, total organic [TOC]	E355-L	0.5	mg/L	<0.50	
otal Metals (QCLot: 1501368)					
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	

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Client : Stantec Consulting Ltd.

Project : 123515016

Sub-Matrix: Water





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Client : Stantec Consulting Ltd.

Project : 123515016



Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Fotal Metals (QCLot: 1508322)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	
Dissolved Metals (QCLot: 15017:	34)					
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	
olatile Organic Compounds (Q0	CLot: 1501501)					
Benzene	71-43-2	E611A	0.5	μg/L	<0.50	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	<0.50	
Toluene	108-88-3	E611A	0.5	μg/L	<0.50	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	<0.40	
Xylene, o-	95-47-6	E611A	0.3	μg/L	<0.30	
lydrocarbons (QCLot: 1501502)						
F1 (C6-C10)		E581.F1	100	μg/L	<100	
ydrocarbons (QCLot: 1508425)						
F2 (C10-C16)		E601	100	μg/L	<100	
F3 (C16-C34)		E601	250	μg/L	<250	
F4 (C34-C50)		E601	250	μg/L	<250	
ydrocarbons (QCLot: 1508996)						
F2 (C10-C16)		E601	100	μg/L	<100	
F3 (C16-C34)		E601	250	μg/L	<250	
F4 (C34-C50)		E601	250	μg/L	<250	

Qualifiers

Qualifier Description

MBRR

Initial MB for this submission had positive results for flagged analyte (data not shown). Low level samples were repeated with new QC (2nd MB results shown). High level results (>5x initial MB level) and non-detect results were reported and are defensible

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Client : Stantec Consulting Ltd.

Project : 123515016



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 Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1502230)									
Conductivity		E100	1	μS/cm	147 μS/cm	99.9	90.0	110	
Physical Tests (QCLot: 1502231)									
рН		E108		pH units	7 pH units	100	98.0	102	
Physical Tests (QCLot: 1502232)									
Alkalinity, phenolphthalein (as CaCO3)		E290	1	mg/L	229 mg/L	112	75.0	125	
Alkalinity, total (as CaCO3)		E290	1	mg/L	500 mg/L	110	85.0	115	
Physical Tests (QCLot: 1508203)									
Solids, total suspended [TSS]		E160-L	1	mg/L	150 mg/L	91.5	85.0	115	
Physical Tests (QCLot: 1508204)									
Solids, total dissolved [TDS]		E162-L	3	mg/L	1000 mg/L	111	85.0	115	
Anions and Nutrients (QCLot: 1502236)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	
Anions and Nutrients (QCLot: 1502237)									
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: 1502238)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	
Anions and Nutrients (QCLot: 1502240)									
Chloride	16887-00-6	E235.CI	0.5	mg/L	100 mg/L	101	90.0	110	
Anions and Nutrients (QCLot: 1502243)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	95.0	80.0	120	
Anions and Nutrients (QCLot: 1503852)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.03 mg/L	98.4	80.0	120	
Anions and Nutrients (QCLot: 1505171)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	103	85.0	115	
Organic / Inorganic Carbon (QCLot: 1505574)									
Carbon, total organic [TOC]		E355-L	0.5	mg/L	8.57 mg/L	89.2	80.0	120	
Total Metals (QCLot: 1501368)									
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	98.5	80.0	120	

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Client : Stantec Consulting Ltd.



Total Metals (QCLot: 1501368) - continued	Spike Recovery et Concentration LCS 1 mg/L 106 0.25 mg/L 100 0.1 mg/L 96.1 1 mg/L 101 1 mg/L 101	(%) Recovery Low 80.0 80.0 80.0 80.0	Limits (%) High 120 120	Qualifier
Total Metals (QCLot: 1501368) - continued Arsenic, total T440-38-2 E420 0.0001 mg/L	1 mg/L 106 0.25 mg/L 100 0.1 mg/L 96.1 1 mg/L 101 1 mg/L 101	80.0 80.0	120 120	
Arsenic, total 7440-38-2 E420 0.0001 mg/L Barium, total 7440-39-3 E420 0.0001 mg/L Beryllium, total 7440-41-7 E420 0.00002 mg/L Beryllium, total 7440-69-9 E420 0.00005 mg/L Boron, total 7440-69-9 E420 0.00005 mg/L E420 0.00005 m	0.25 mg/L 100 0.1 mg/L 96.1 1 mg/L 101 1 mg/L 101	80.0	120	
Barium, total 7440-39-3 E420 0.0001 mg/L Beryllium, total 7440-41-7 E420 0.00002 mg/L Bismuth, total 7440-89-9 E420 0.00005 mg/L Boron, total 7440-42-8 E420 0.00005 mg/L Cadmium, total 7440-43-9 E420 0.05 mg/L Calcium, total 7440-74-9 E420 0.05 mg/L Cesium, total 7440-42-8 E420 0.0005 mg/L Cresium, total 7440-43-9 E420 0.0001 mg/L Cresium, total 7440-44-8 E420 0.0005 mg/L Cresium, total 7440-48-4 E420 0.0005 mg/L Cresium, total 7440-48-4 E420 0.0001 mg/L Coper, total incorrection 7440-48-4 E420 0.0005 mg/L Lead, total 7439-98-6 E420 0.0005 mg/L Lithium, total 7439-98-7 E420 0.000 mg/L </td <td>0.25 mg/L 100 0.1 mg/L 96.1 1 mg/L 101 1 mg/L 101</td> <td>80.0</td> <td>120</td> <td></td>	0.25 mg/L 100 0.1 mg/L 96.1 1 mg/L 101 1 mg/L 101	80.0	120	
Beryllium, total 7440-41-7 E420 0.00002 mg/L Bismuth, total 7440-69-9 E420 0.00005 mg/L Boron, total 7440-42-8 E420 0.01 mg/L Cadrium, total 7440-43-9 E420 0.00005 mg/L Calcium, total 7440-43-9 E420 0.00005 mg/L Cesium, total 7440-70-2 E420 0.0001 mg/L Chromium, total 7440-48-2 E420 0.0005 mg/L Choper, total 7440-48-4 E420 0.0005 mg/L Copper, total 7440-50-8 E420 0.0005 mg/L Iron, total 7439-89-6 E420 0.01 mg/L Lead, total 7439-89-6 E420 0.001 mg/L Lithium, total 7439-89-7 E420 0.001 mg/L Magnesium, total 7439-89-5 E420 0.001 mg/L Molybdenum, total 7439-89-7 E420 0.0005 mg/L <t< td=""><td>0.1 mg/L 96.1 1 mg/L 101 1 mg/L 101</td><td></td><td></td><td></td></t<>	0.1 mg/L 96.1 1 mg/L 101 1 mg/L 101			
Bismuth, total 7440-69-9 E420 0.00005 mg/L Cadmium, total 7440-42-8 E420 0.01 mg/L Cadmium, total 7440-43-9 E420 0.00005 mg/L Calcium, total 7440-43-9 E420 0.05 mg/L Calcium, total 7440-47-2 E420 0.05 mg/L Calcium, total 7440-47-3 E420 0.0001 mg/L Chromium, total 7440-48-4 E420 0.0005 mg/L Cobalt, total 7440-48-4 E420 0.0005 mg/L Copper, total 7440-80-8 E420 0.0005 mg/L Copper, total 7439-89-6 E420 0.0005 mg/L Calcium, total 7439-89-6 E420 0.0005 mg/L Calcium, total 7439-93-2 E420 0.0005 mg/L Calcium, total 7439-93-2 E420 0.0005 mg/L Calcium, total 7439-93-2 E420 0.001 mg/L Calcium, total 7439-93-2 E420 0.001 mg/L Calcium, total 7439-93-2 E420 0.001 mg/L Calcium, total 7439-94-2 E420 0.005 mg/L Calcium, total 7439-95-4 E420 0.005 mg/L Calcium, total 7439-95-4 E420 0.005 mg/L Calcium, total 7440-02-0 E420 0.0005 mg/L Calcium, total 7440-02-0 E420 0.0005 mg/L Calcium, total 7440-02-0 E420 0.0005 mg/L Calcium, total 7440-02-0 E420 0.005 mg/L Calcium, total 7440-03-7 E420 0.005 mg/L Calcium, total 7440-03-7 E420 0.0005 mg/L Calcium, total 7440-03-8 E420 0.00005 mg/L Calcium, total 7440-03-8 E420 0.00001 mg/L Calcium, total 7440-03-9 E	1 mg/L 101 1 mg/L 101	80.0	1	
Boron, total 7440-42-8 E420 0.01 mg/L Cadmium, total 7440-43-9 E420 0.000005 mg/L Calcium, total 7440-40-9 E420 0.000005 mg/L Cesium, total 7440-40-2 E420 0.0001 mg/L Chromium, total 7440-46-2 E420 0.0005 mg/L Cobalt, total 7440-47-3 E420 0.0005 mg/L Cobalt, total 7440-48-4 E420 0.0001 mg/L Copper, total 7440-50-8 E420 0.0005 mg/L Copper, total 7440-50-8 E420 0.0005 mg/L Copper, total 7439-89-6 E420 0.0005 mg/L Copper, total 7439-89-6 E420 0.0005 mg/L Copper, total 7439-89-6 E420 0.0005 mg/L Copper, total 7439-99-6 E420 0.0005 mg/L Copper, total 7439-99-6 E420 0.0005 mg/L Copper, total 7439-99-6 E420 0.0005 mg/L Copper, total 7439-99-7 E420 0.0005 mg/L Copper, total 7439-99-7 E420 0.0005 mg/L Copper, total 7439-99-7 E420 0.0005 mg/L Copper, total 7440-02-0 E420 0.0005 mg/L Copper, total 7440-02-0 E420 0.0005 mg/L Copper, total 7440-02-1 E420 0.00005 mg/L Copper, total 7440-02-1 E420 0.00001 mg/L Copper, total 7440-02-1 E420 0.0001 mg/L Copper, total	1 mg/L 101		120	
Cadmium, total 7440-43-9 E420 0.000005 mg/L Calcium, total 7440-70-2 E420 0.05 mg/L Cesium, total 7440-46-2 E420 0.00001 mg/L Chromium, total 7440-48-3 E420 0.0005 mg/L Cobalt, total 7440-48-4 E420 0.0001 mg/L Copper, total 7440-50-8 E420 0.0005 mg/L Iron, total 7439-89-6 E420 0.0005 mg/L Lead, total 7439-98-6 E420 0.0005 mg/L Lithium, total 7439-98-1 E420 0.0005 mg/L Magnesium, total 7439-98-2 E420 0.001 mg/L Manganese, total 7439-98-5 E420 0.001 mg/L Molybdenum, total 7439-98-7 E420 0.0005 mg/L Nickel, total 7440-02-0 E420 0.0005 mg/L Potassium, total 7440-02-0 E420 0.05 mg/L Rubidium, total 7440-02-1 E420 0.000 mg/L <td></td> <td>80.0</td> <td>120</td> <td></td>		80.0	120	
Calcium, total 7440-70-2 E420 0.05 mg/L Cesium, total 7440-46-2 E420 0.00001 mg/L Chromium, total 7440-46-3 E420 0.0005 mg/L Cobalt, total 7440-48-4 E420 0.0005 mg/L Copper, total 7440-50-8 E420 0.0005 mg/L Iron, total 7439-89-6 E420 0.0005 mg/L Lead, total 7439-89-6 E420 0.0005 mg/L Lithium, total 7439-93-2 E420 0.0005 mg/L Lithium, total 7439-93-2 E420 0.0005 mg/L Magnesium, total 7439-93-2 E420 0.001 mg/L Magnesium, total 7439-95-4 E420 0.0005 mg/L Magnese, total 7439-95-6 E420 0.005 mg/L Molybdenum, total 7439-98-7 E420 0.0005 mg/L Nickel, total 7439-98-7 E420 0.0005 mg/L Nickel, total 7440-02-0 E420 0.0005 mg/L Phosphorus, total 7440-02-0 E420 0.0005 mg/L Selenium, total 7440-02-1 E420 0.0005 mg/L Selenium, total 7440-02-1 E420 0.000 mg/L Selenium, total 7440-02-1 E420 0.0002 mg/L Selenium, total 7440-02-1 E420 0.0005 mg/L Silicon, total 7440-02-1 E420 0.00005 mg/L Silicon, total 7440-02-1 E420 0.00005 mg/L Silicon, total 7440-02-1 E420 0.0000 mg/L		80.0	120	
Cesium, total 7440-46-2 E420 0.00001 mg/L Chromium, total 7440-47-3 E420 0.0005 mg/L Cobalt, total 7440-48-4 E420 0.0001 mg/L Copper, total 7440-50-8 E420 0.0005 mg/L Liron, total 7439-89-6 E420 0.01 mg/L Lead, total 7439-92-1 E420 0.0005 mg/L Lithium, total 7439-93-2 E420 0.001 mg/L Magnesium, total 7439-93-5 E420 0.001 mg/L Molybdenum, total 7439-98-7 E420 0.005 mg/L Molybdenum, total 7439-98-7 E420 0.0001 mg/L Nickel, total 7440-02-0 E420 0.0005 mg/L Potassium, total 7440-02-0 E420 0.0005 mg/L Rubidium, total 7440-03-7 E420 0.05 mg/L Selenium, total 7440-17-7 E420 0.0002 mg/L Silicon, total 7440-22-4 E420 0.00005 mg/L <	0.1 mg/L 103	80.0	120	
Chromium, total 7440-47-3 E420 0.0005 mg/L Cobalt, total 7440-48-4 E420 0.0001 mg/L Copper, total 7440-50-8 E420 0.0005 mg/L Iron, total 7439-89-6 E420 0.01 mg/L Lead, total 7439-92-1 E420 0.0005 mg/L Lithium, total 7439-93-2 E420 0.001 mg/L Magnesium, total 7439-95-4 E420 0.005 mg/L Molybdenum, total 7439-96-5 E420 0.0001 mg/L Molybdenum, total 7439-98-7 E420 0.0001 mg/L Nickel, total 7440-02-0 E420 0.0005 mg/L Phosphorus, total 7440-02-0 E420 0.05 mg/L Potassium, total 7440-09-7 E420 0.05 mg/L Selenium, total 7440-17-7 E420 0.0002 mg/L Silicon, total 7440-22-4 E420 0.00005 mg/L	50 mg/L 98.1	80.0	120	
Cobalt, total 7440-48-4 E420 0.0001 mg/L Copper, total 7440-50-8 E420 0.0005 mg/L Iron, total 7439-89-6 E420 0.01 mg/L Lead, total 7439-92-1 E420 0.0005 mg/L Lithium, total 7439-93-2 E420 0.001 mg/L Magnesium, total 7439-95-4 E420 0.005 mg/L Manganese, total 7439-96-5 E420 0.0001 mg/L Molybdenum, total 7439-98-7 E420 0.0005 mg/L Nickel, total 7440-02-0 E420 0.0005 mg/L Phosphorus, total 7723-14-0 E420 0.005 mg/L Rubidium, total 7440-09-7 E420 0.05 mg/L Selenium, total 7782-49-2 E420 0.0002 mg/L Sillicon, total 7440-21-3 E420 0.0005 mg/L Sillicon, total 7440-22-4 E420 0.00001 mg/L Sodium, total 7440-23-5 E420 0.0001 mg/L </td <td>0.05 mg/L 93.5</td> <td>80.0</td> <td>120</td> <td></td>	0.05 mg/L 93.5	80.0	120	
Copper, total 7440-50-8 E420 0.0005 mg/L lron, total 7439-89-6 E420 0.01 mg/L lead, total 7439-89-6 E420 0.0005 mg/L lithium, total 7439-92-1 E420 0.0005 mg/L lithium, total 7439-93-2 E420 0.001 mg/L lithium, total 7439-95-8 E420 0.005 mg/L lithium, total 7439-95-8 E420 0.0005 mg/L lithium, total 7439-96-5 E420 0.0001 mg/L lithium, total 7439-98-7 E420 0.0005 mg/L lithium, total 7439-98-7 E420 0.0005 mg/L lithium, total 7440-02-0 E420 0.0005 mg/L lithium, total 7440-02-0 E420 0.005 mg/L lithium, total 7440-09-7 E420 0.05 mg/L lithium, total 7440-09-7 E420 0.05 mg/L lithium, total 7440-17-7 E420 0.0002 mg/L lithium, total 7440-17-3 E420 0.0005 mg/L lithium, total 7440-17-3 E420 0.00005 mg/L lithium, total 7440-17-3 E420 0.00005 mg/L lithium, total 7440-21-3 E420 0.00005 mg/L lithium, total 7440-22-4 E420 0.00005 mg/L lithium, total 7440-22-4 E420 0.00005 mg/L lithium, total 7440-22-4 E420 0.00005 mg/L lithium, total 7440-23-5 E420 0.00001 mg/L lithium, total 7440-24-6 E420 0.00001 mg/L lithium, total 7440-24-6 E420 0.0002 mg/L lithium, total 17440-24-6 E420 0.0003 mg/L lithium, total 17440-24-6 E420 0.0005	0.25 mg/L 99.8	80.0	120	
Iron, total Lead, total Lead, total A39-82-1 E420 D.0005 Mg/L Lithium, total A39-92-1 E420 D.0005 Mg/L Magnesium, total A39-93-2 E420 D.0001 Mg/L Magnesium, total A39-95-5 E420 D.0005 Mg/L Manganese, total A39-96-5 E420 D.0001 Mg/L Molybdenum, total A39-96-7 E420 D.00005 Mg/L Molybdenum, total A40-02-0 E420 D.0005 Mg/L Phosphorus, total A40-09-7 E420 D.005 Mg/L Potassium, total A40-09-7 E420 D.005 Mg/L Rubidium, total A40-09-7 E420 D.005 Mg/L Selenium, total A40-09-7 E420 D.0005 Mg/L Selenium, total A40-09-7 E420 D.00005 Mg/L Selenium, total A40-09-7 E420 D.00001 Mg/L Selenium, total A40-09-8 E420 D.00001 Mg/L Selenium, total A40-09-8 E420 D.00001 Mg/L Selenium, total A40-09-8 E420 D.00002 Mg/L Selenium, total A40-09-8 E420 D.00003 Mg/L Selenium, total A40-09-8 E420 D.00001 Mg/L Seleniu	0.25 mg/L 103	80.0	120	
Lead, total 7439-92-1 E420 0.00005 mg/L Lithium, total 7439-93-2 E420 0.001 mg/L Magnesium, total 7439-95-4 E420 0.005 mg/L Manganese, total 7439-96-5 E420 0.0001 mg/L Molybdenum, total 7439-98-7 E420 0.00005 mg/L Nickel, total 7440-02-0 E420 0.0005 mg/L Phosphorus, total 7723-14-0 E420 0.05 mg/L Potassium, total 7440-09-7 E420 0.05 mg/L Rubidium, total 7440-17-7 E420 0.0002 mg/L Selenium, total 7782-49-2 E420 0.0002 mg/L Silicon, total 7440-21-3 E420 0.1 mg/L Silver, total 7440-22-4 E420 0.0001 mg/L Sodium, total 7440-23-5 E420 0.05 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.55 mg/L </td <td>0.25 mg/L 104</td> <td>80.0</td> <td>120</td> <td></td>	0.25 mg/L 104	80.0	120	
Lithium, total 7439-93-2 E420 0.001 mg/L Magnesium, total 7439-95-4 E420 0.005 mg/L Manganese, total 7439-96-5 E420 0.0001 mg/L Molybdenum, total 7439-96-7 E420 0.0005 mg/L Molybdenum, total 7440-02-0 E420 0.0005 mg/L Molybdenum, total 7440-02-0 E420 0.0005 mg/L Molybdenum, total 7440-09-7 E420 0.005 mg/L Molybdenum, total 7440-09-7 E420 0.05 mg/L Molybdenum, total 7440-09-7 E420 0.05 mg/L Molybdenum, total 7440-17-7 E420 0.002 mg/L Molybdenum, total 7440-17-7 E420 0.0002 mg/L Molybdenum, total 7440-21-3 E420 0.00005 mg/L Molybdenum, total 7440-21-3 E420 0.00005 mg/L Molybdenum, total 7440-22-4 E420 0.00005 mg/L Molybdenum, total 7440-22-4 E420 0.00001 mg/L Molybdenum, total 7440-23-5 E420 0.00001 mg/L Molybdenum, total 7440-24-6 E420 0.0001 mg/L Molybdenum, total 7440-24-6 E420 0.0002 mg/L Molybdenum, total 7440-24-6 E	1 mg/L 95.2	80.0	120	
Magnesium, total 7439-95-4 E420 0.005 mg/L Manganese, total 7439-96-5 E420 0.0001 mg/L Molybdenum, total 7439-98-7 E420 0.00005 mg/L Nickel, total 7440-02-0 E420 0.0005 mg/L Phosphorus, total 7723-14-0 E420 0.05 mg/L Potassium, total 7440-09-7 E420 0.05 mg/L Rubidium, total 7440-17-7 E420 0.0002 mg/L Selenium, total 7782-49-2 E420 0.00005 mg/L Silicon, total 7440-21-3 E420 0.00005 mg/L Silver, total 7440-22-4 E420 0.00001 mg/L Sodium, total 7440-23-5 E420 0.05 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.5 mg/L	0.5 mg/L 101	80.0	120	
Manganese, total 7439-96-5 E420 0.0001 mg/L Molybdenum, total 7439-98-7 E420 0.00005 mg/L Molybdenum, total 7440-02-0 E420 0.0005 mg/L Molybdenum, total 7440-02-0 E420 0.0005 mg/L Molybdenum, total 7723-14-0 E420 0.05 mg/L Molybdenum, total 7440-09-7 E420 0.05 mg/L Molybdenum, total 7440-17-7 E420 0.05 mg/L Molybdenum, total 7440-17-7 E420 0.0002 mg/L Molybdenum, total 7782-49-2 E420 0.00005 mg/L Molybdenum, total 7782-49-2 E420 0.00005 mg/L Molybdenum, total 7440-21-3 E420 0.00005 mg/L Molybdenum, total 7440-22-4 E420 0.00001 mg/L Molybdenum, total 7440-22-4 E420 0.00001 mg/L Molybdenum, total 7440-23-5 E420 0.0001 mg/L Molybdenum, total 7440-24-6 E420 0.0002 mg/L Molybdenum, total 7440	0.25 mg/L 103	80.0	120	
Molybdenum, total 7439-98-7 E420 0.00005 mg/L 7440-02-0 E420 0.0005 mg/L Phosphorus, total 7723-14-0 E420 0.05 mg/L Potassium, total 7440-09-7 E420 0.05 mg/L Potassium, total 7440-17-7 E420 0.05 mg/L Potassium, total 7440-17-7 E420 0.0002 mg/L Potassium, total 7440-17-7 E420 0.0002 mg/L Potassium, total 7440-17-7 E420 0.0002 mg/L Potassium, total 7440-17-7 E420 0.00005 mg/L Potassium, total 7440-17-8 E420 0.00005 mg/L Potassium, total 7440-21-3 E420 0.00005 mg/L Potassium, total 7440-22-4 E420 0.00001 mg/L Potassium, total 7440-23-5 E420 0.00001 mg/L Potassium, total 7440-23-5 E420 0.00001 mg/L Potassium, total 7440-24-6 E420 0.00001 mg/L Potassium, total 7440-24-6 E420 0.0002 mg/L Potassium, total 7440-24-6 E420 0.0	50 mg/L 102	80.0	120	
Nickel, total 7440-02-0 E420 0.0005 mg/L Phosphorus, total 7723-14-0 E420 0.05 mg/L Phosphorus, total 7440-09-7 E420 0.05 mg/L Phosphorus, total 7440-09-7 E420 0.05 mg/L Phosphorus, total 7440-17-7 E420 0.0002 mg/L Phosphorus, total 7440-17-7 E420 0.0002 mg/L Phosphorus, total 7440-21-3 E420 0.00005 mg/L Phosphorus, total 7440-21-3 E420 0.00005 mg/L Phosphorus, total 7440-22-4 E420 0.00001 mg/L Phosphorus, total 7440-23-5 E420 0.0001 mg/L Phosphorus, total 7440-23-5 E420 0.0001 mg/L Phosphorus, total 7440-24-6 E420 0.0002 mg/L Phosphorus, total 7440-24-6 Phosphorus, total 7440-	0.25 mg/L 98.0	80.0	120	
Phosphorus, total 7723-14-0 E420 0.05 mg/L Potassium, total 7440-09-7 E420 0.05 mg/L Potassium, total 7440-17-7 E420 0.0002 mg/L Potassium, total 7782-49-2 E420 0.0002 mg/L Potassium, total 7782-49-2 E420 0.00005 mg/L Potassium, total 7782-49-2 E420 0.00005 mg/L Potassium, total 7440-21-3 E420 0.1 mg/L Potassium, total 7440-22-4 E420 0.00001 mg/L Potassium, total 7440-23-5 E420 0.05 mg/L Potassium, total 7440-24-6 E420 0.0002 mg/L Potassium, total 7704-34-9 E420 0.0002 mg/L Potassium, total 7704-34-9 E420 0.05 mg/L Potassium, total 7704-34-9 E420 0.0002 mg/L Potassium, total 7704-34-9 E420 0.05 mg/L Potassium, total 7704-34-9 E420 0.0002 mg/L	0.25 mg/L 98.6	80.0	120	
Potassium, total 7440-09-7 E420 0.05 mg/L Rubidium, total 7440-17-7 E420 0.0002 mg/L Selenium, total 7782-49-2 E420 0.00005 mg/L Silicon, total 7440-21-3 E420 0.1 mg/L Silver, total 7440-22-4 E420 0.00001 mg/L Sodium, total 7440-23-5 E420 0.00001 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Strontium, total 7704-34-9 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.55 mg/L	0.5 mg/L 99.0	80.0	120	
Rubidium, total 7440-17-7 E420 0.0002 mg/L Selenium, total 7782-49-2 E420 0.00005 mg/L Silicon, total 7440-21-3 E420 0.1 mg/L Silver, total 7440-22-4 E420 0.00001 mg/L Sodium, total 7440-23-5 E420 0.05 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.5 mg/L	10 mg/L 105	80.0	120	
Selenium, total 7782-49-2 E420 0.00005 mg/L Silicon, total 7440-21-3 E420 0.1 mg/L Silver, total 7440-22-4 E420 0.00001 mg/L Sodium, total 7440-23-5 E420 0.05 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.5 mg/L	50 mg/L 102	80.0	120	
Silicon, total 7440-21-3 E420 0.1 mg/L Silver, total 7440-22-4 E420 0.00001 mg/L Sodium, total 7440-23-5 E420 0.05 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.5 mg/L	0.1 mg/L 100.0	80.0	120	
Silver, total 7440-22-4 E420 0.00001 mg/L Sodium, total 7440-23-5 E420 0.05 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.5 mg/L	1 mg/L 106	80.0	120	
Sodium, total 7440-23-5 E420 0.05 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.5 mg/L	10 mg/L 112	80.0	120	
Sodium, total 7440-23-5 E420 0.05 mg/L Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.5 mg/L	0.1 mg/L 90.7	80.0	120	
Strontium, total 7440-24-6 E420 0.0002 mg/L Sulfur, total 7704-34-9 E420 0.5 mg/L	50 mg/L 105	80.0	120	
Sulfur, total 7704-34-9 E420 0.5 mg/L	0.25 mg/L 98.5	80.0	120	
Tellurium, total 13494-80-9 E420 0.0002 mg/L	50 mg/L 101	80.0	120	
	0.1 mg/L 95.7	80.0	120	
Thallium, total 7440-28-0 E420 0.00001 mg/L	1 mg/L 95.0	80.0	120	
Thorium, total 7440-29-1 E420 0.0001 mg/L	0.1 mg/L 102	80.0	120	
Tin, total 7440-31-5 E420 0.0001 mg/L	0.5 mg/L 94.0	80.0	120	
Titanium, total 7440-32-6 E420 0.0003 mg/L	0.25 mg/L 104	80.0	120	
Tungsten, total 7440-33-7 E420 0.0001 mg/L	0.1 mg/L 97.8	80.0	120	
		80.0	120	
Vanadium, total 7440-62-2 E420 0.0005 mg/L	0.005 mg/L 105	80.0	120	
Zinc, total 7440-66-6 E420 0.003 mg/L	•	11.1	120	

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water		Laboratory Co	ontrol Sample (LCS)	Report					
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1501368) - continued									
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.6	80.0	120	
Total Metals (QCLot: 1508322)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	
Dissolved Metals (QCLot: 1501734)									
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.9	80.0	120	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	96.2	80.0	120	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	99.9	80.0	120	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	99.9	80.0	120	
Volatile Organic Compounds (QCLot: 1501501									
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	127	70.0	130	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	123	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	123	70.0	130	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	124	70.0	130	
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	124	70.0	130	
Hydrocarbons (QCLot: 1501502)									
F1 (C6-C10)		E581.F1	100	μg/L	2480 μg/L	106	70.0	130	
Hydrocarbons (QCLot: 1508425)									
F2 (C10-C16)		E601	100	μg/L	3830 μg/L	99.1	70.0	130	
F3 (C16-C34)		E601	250	μg/L	7950 μg/L	99.3	70.0	130	
F4 (C34-C50)		E601	250	μg/L	4220 μg/L	101	70.0	130	
Hydrocarbons (QCLot: 1508996)									
F2 (C10-C16)		E601	100	μg/L	3830 μg/L	114	70.0	130	
F3 (C16-C34)		E601	250	μg/L	7950 μg/L	109	70.0	130	
F4 (C34-C50)		E601	250	μg/L	4220 μg/L	110	70.0	130	

Page : 12 of 13 Work Order : YL2400673

Client : Stantec Consulting Ltd.

Project : 123515016



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					
					Spi	ke	Recovery (%)	Recovery	/ Limits (%)		
Laboratory sample	ID Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier	
Anions and Nut	rients (QCLot: 1502236)									
VA24B4087-022	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125		
Anions and Nut	rients (QCLot: 1502237)									
VA24B4087-022	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125		
Anions and Nut	rients (QCLot: 1502238)									
VA24B4087-022	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.501 mg/L	0.5 mg/L	100	75.0	125		
Anions and Nut	rients (QCLot: 1502240))									
VA24B4087-022	Anonymous	Chloride	16887-00-6	E235.CI	103 mg/L	100 mg/L	103	75.0	125		
Anions and Nut	rients (QCLot: 1502243))									
VA24B4314-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0280 mg/L	0.03 mg/L	93.3	70.0	130		
Anions and Nut	rients (QCLot: 1503852))									
VA24B3865-004	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L		ND	70.0	130		
Anions and Nut	rients (QCLot: 1505171))									
CG2408208-006	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L		ND	75.0	125		
Organic / Inorga	anic Carbon (QCLot: 15										
VA24B3798-008	Anonymous	Carbon, total organic [TOC]		E355-L	ND mg/L		ND	70.0	130		
Total Metals (Q	CLot: 1501368)										
YL2400674-002	Anonymous	Chromium, total	7440-47-3	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130		
		Thorium, total	7440-29-1	E420	0.0186 mg/L	0.02 mg/L	93.1	70.0	130		
YL2400674-002	Anonymous	Aluminum, total	7429-90-5	E420	0.192 mg/L	0.2 mg/L	95.8	70.0	130		
		Antimony, total	7440-36-0	E420	0.0179 mg/L	0.02 mg/L	89.4	70.0	130		
		Arsenic, total	7440-38-2	E420	ND mg/L		ND	70.0	130		
		Barium, total	7440-39-3	E420	0.0181 mg/L	0.02 mg/L	90.7	70.0	130		
		Beryllium, total	7440-41-7	E420	0.0403 mg/L	0.04 mg/L	101	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	0.102 mg/L	0.1 mg/L	102	70.0	130		
		Cadmium, total	7440-43-9	E420	0.00372 mg/L	0.004 mg/L	93.0	70.0	130		
		Calcium, total	7440-70-2	E420	ND mg/L		ND	70.0	130		
		Cesium, total	7440-46-2	E420	0.00896 mg/L	0.01 mg/L	89.6	70.0	130		
		Cobalt, total	7440-48-4	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130		
		Copper, total	7440-50-8	E420	0.0191 mg/L	0.02 mg/L	95.5	70.0	130		
1					Ü	_				1	
			7439-89-6	E420	1.90 mg/l	2 ma/L	94.9	70.0	130		
		Iron, total	7439-89-6 7439-92-1	E420 E420	1.90 mg/L 0.0182 mg/L	2 mg/L 0.02 mg/L	94.9 91.2	70.0 70.0	130 130		
		Iron, total Lead, total	7439-92-1	E420	0.0182 mg/L	0.02 mg/L	91.2	70.0	130		
		Iron, total			-	_					

Page : 13 of 13 Work Order : YL2400673

Client : Stantec Consulting Ltd.



Sub-Matrix: Water							Matrix Spik	e (MS) Report							
					Spi	ke	Recovery (%)	Recovery	Limits (%)						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier					
Fotal Metals (QC	Lot: 1501368) <i>-</i> con	tinued													
YL2400674-002	Anonymous	Molybdenum, total	7439-98-7	E420	0.0186 mg/L	0.02 mg/L	92.8	70.0	130						
		Nickel, total	7440-02-0	E420	0.0381 mg/L	0.04 mg/L	95.4	70.0	130						
		Phosphorus, total	7723-14-0	E420	8.79 mg/L	10 mg/L	87.9	70.0	130						
		Potassium, total	7440-09-7	E420	3.90 mg/L	4 mg/L	97.5	70.0	130						
		Rubidium, total	7440-17-7	E420	0.0185 mg/L	0.02 mg/L	92.3	70.0	130						
		Selenium, total	7782-49-2	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130						
		Silicon, total	7440-21-3	E420	9.93 mg/L	10 mg/L	99.3	70.0	130						
		Silver, total	7440-22-4	E420	0.00366 mg/L	0.004 mg/L	91.5	70.0	130						
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130						
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130						
		Sulfur, total	7704-34-9	E420	20.3 mg/L	20 mg/L	101	70.0	130						
		Tellurium, total	13494-80-9	E420	0.0356 mg/L	0.04 mg/L	88.9	70.0	130						
		Thallium, total	7440-28-0	E420	0.00343 mg/L	0.004 mg/L	85.8	70.0	130						
		Tin, total	7440-31-5	E420	0.0179 mg/L	0.02 mg/L	89.7	70.0	130						
		Titanium, total	7440-32-6	E420	0.0398 mg/L	0.04 mg/L	99.5	70.0	130						
		Tungsten, total	7440-33-7	E420	0.0181 mg/L	0.02 mg/L	90.4	70.0	130						
		Uranium, total	7440-61-1	E420	0.00382 mg/L	0.004 mg/L	95.5	70.0	130						
		Vanadium, total	7440-62-2	E420	0.0978 mg/L	0.1 mg/L	97.8	70.0	130						
		Zinc, total	7440-66-6	E420	0.381 mg/L	0.4 mg/L	95.3	70.0	130						
		Zirconium, total	7440-67-7	E420	0.0370 mg/L	0.04 mg/L	92.4	70.0	130						
Total Metals (QC	Lot: 1508322)														
VA24B3832-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000932 mg/L	0 mg/L	93.2	70.0	130						
Dissolved Metals	(QCLot: 1501734)														
FJ2401696-002	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L		ND	70.0	130						
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130						
		Potassium, dissolved	7440-09-7	E421	3.92 mg/L	4 mg/L	98.1	70.0	130						
		Sodium, dissolved	7440-23-5	E421	ND mg/L		ND	70.0	130						
/olatile Organic (Compounds (QCLot	t: 1501501)													
EO2404782-001	Anonymous	Benzene	71-43-2	E611A	114 µg/L	100 μg/L	114	70.0	130						
		Ethylbenzene	100-41-4	E611A	107 μg/L	100 μg/L	107	70.0	130						
		Toluene	108-88-3	E611A	108 μg/L	100 μg/L	108	70.0	130						
		Xylene, m+p-	179601-23-1	E611A	234 µg/L	200 μg/L	117	70.0	130						
		Xylene, o-	95-47-6	E611A	111 µg/L	100 μg/L	111	70.0	130						



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 14 -

Page of

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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 campiles are taken from a Regulated Drinking Water (DW) System, please automit using an Authorized DW COC form. REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Telephone

Work Order : YL2400874 Page : 1 of 11

: 1 Amendment

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

: Natalie Normandeau **Account Manager** : Oliver Gregg Contact

Address Address : 4910 53 Street : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 3T3

Yellowknife NT Canada X1A 2P4 Telephone

: 1 867 445 7143 **Date Samples Received Project** : 123515016 : 11-Jul-2024 09:40

PO **Date Analysis Commenced** : 15-Jul-2024

C-O-C number Issue Date : 15-Aug-2024 11:51 Sampler

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 10 No. of samples analysed : 10

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**
- Surrogate Control Limits

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

Site

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	
Dan Gebert	Laboratory Analyst	Metals, Burnaby, British Columbia	
Ilnaz Badbezanchi	Supervisor - Metals Prep & Mercury	Metals, Burnaby, British Columbia	
Janice Leung	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Inorganics, Burnaby, British Columbia	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia	
Owen Cheng		Metals, Burnaby, British Columbia	
Robin Weeks	Team Leader - Metals	Inorganics, Burnaby, British Columbia	

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Work Order : YL2400874 Amendment 1
Client : Stantec Consulting Ltd.

Project : 123515016



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less 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.

Sample Comments

Sample	Client Id	Comment
YL2400874-001	GLG-2024-00002-013	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400874-002	GLG-2024-00002-010	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400874-003	GLG-2024-00002-012	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400874-004	GLG-2024-00002-011	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400874-005	GLG-2024-00002-006	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400874-006	GLG-2024-00002-019	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400874-007	GLG-2024-00002-003	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

>: greater than.

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Work Order YL2400874 Amendment 1 Stantec Consulting Ltd. 123515016 Client

Project



YL2400874-008	GLG-2024-00002-004	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400874-009	GLG-2024-00002-001	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
YL2400874-010	GLG-2024-00002-002	low. Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased
		low.

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).

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Work Order YL2400874 Amendment 1 Stantec Consulting Ltd. 123515016 Client

Project



Sub-Matrix: Water			Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					2-013	2-010	2-012	2-011	2-006
			Client samp	ling date / time	10-Jul-2024 10:05	10-Jul-2024 10:55	10-Jul-2024 12:10	10-Jul-2024 13:15	10-Jul-2024 10:50
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400874-001	YL2400874-002	YL2400874-003	YL2400874-004	YL2400874-005
					Result	Result	Result	Result	Result
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	40.7	40.6	40.9	40.2	168
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	3.4
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	1.7
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	40.7	40.6	40.9	40.2	171
Conductivity		E100/VA	2.0	μS/cm	101	99.5	99.9	98.9	570
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	43.0	44.1	44.2	44.4	312
рН		E108/VA	0.10	pH units	7.91	7.92	7.92	7.94	8.36
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	56.3	48.7	58.7	53.7	395
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	42.0	41.2	42.2	42.1	288
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7		0.0050	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	1.44	1.44	1.44	1.43	0.88
Nitrate (as N)	14797-55-8	E235.NO3-L/V Δ	0.0050	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	3.72
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L	<0.022	<0.022	<0.022	<0.022	16.5
Nitrate + Nitrite (as N)		VA EC235.N+N/V	0.0050	mg/L	<0.0051	<0.0051	<0.0051	<0.0051	3.72
Nitrite (as N)	14797-65-0	A E235.NO2-L/V	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	0.0016
Nitrite (as NO2)	14797-65-0	EC235.NO2A/	0.0030	mg/L	<0.0033	<0.0033	<0.0033	<0.0033	0.0052
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	0.0132
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0042	0.0040	0.0045	0.0029	0.0179
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	7.86	7.86	7.88	7.84	127
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	2.60	2.76	2.83	3.02	4.04
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0057	0.0080	0.0147	0.0108	0.0053

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Work Order YL2400874 Amendment 1 Stantec Consulting Ltd. 123515016 Client

Project



Sub-Matrix: Water		Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				2-013	2-010	2-012	2-011	2-006
		Client samp	ling date / time	10-Jul-2024 10:05	10-Jul-2024 10:55	10-Jul-2024 12:10	10-Jul-2024 13:15	10-Jul-2024 10:50
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400874-001	YL2400874-002	YL2400874-003	YL2400874-004	YL2400874-005
				Result	Result	Result	Result	Result
Total Metals								
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	0.00488
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00032	0.00030	0.00033	0.00030	0.00380
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.00434	0.00440	0.00443	0.00479	0.0255
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	0.010
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000154
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	12.4	12.8	12.9	12.9	109
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	0.00019
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00108	0.00054	0.00065	0.00056	0.00124
Iron, total	7439-89-6 E420/VA	0.010	mg/L	<0.010	<0.010	0.012	<0.010	0.019
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0021	0.0021	0.0022	0.0022	0.0019
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	2.92	2.95	2.92	2.96	9.79
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.00075	0.00211	0.00321	0.00214	0.0138
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000112	0.000090	0.000103	0.000089	0.00626
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.00214
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.48	1.50	1.50	1.50	1.71
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00194	0.00188	0.00199	0.00191	0.00111
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050	<0.000050	0.000052	<0.000050	0.00190
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.14	0.15	0.14	0.14	4.90
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	2.43	2.43	2.41	2.40	3.42
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.0477	0.0482	0.0483	0.0485	0.359
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	2.65	2.75	2.53	2.67	45.3
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000010

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Work Order YL2400874 Amendment 1 Stantec Consulting Ltd. 123515016 Client

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Sub-Matrix: Water		Cli	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				2-013	2-010	2-012	2-011	2-006
		Client samp	ling date / time	10-Jul-2024 10:05	10-Jul-2024 10:55	10-Jul-2024 12:10	10-Jul-2024 13:15	10-Jul-2024 10:50
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400874-001	YL2400874-002	YL2400874-003	YL2400874-004	YL2400874-005
				Result	Result	Result	Result	Result
Total Metals								
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	0.00016	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	<0.00030	<0.00030	0.00043	<0.00030	<0.00030
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.000110	0.000105	0.000106	0.000105	0.00328
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals								
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	12.0	11.7	12.1	12.0	99.4
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	2.92	2.90	2.90	2.95	9.61
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	1.54	1.55	1.53	1.55	1.81
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	2.38	2.37	2.38	2.38	3.35
Dissolved metals filtration location	EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	108-88-3 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1 E611A/VA	0.40	μg/L	<0.40	<0.40	<0.40	<0.40	<0.40
Xylene, o-	95-47-6 E611A/VA	0.30	μg/L	<0.30	<0.30	<0.30	<0.30	<0.30
Xylenes, total	1330-20-7 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Hydrocarbons								
F1 (C6-C10)	E581.VH+F1/	100	μg/L	<100	<100	<100	<100	<100
F2 (C10-C16)	VA E601/VA	300	μg/L	<300	<300	<300	<300	<300
F3 (C16-C34)	E601/VA	300	μg/L	<300	<300	<300	<300	<300
F4 (C34-C50)	E601/VA	300	μg/L	<300	<300	<300	<300	<300
F1-BTEX	EC580/VA	100	μg/L	<100	<100	<100	<100	<100
Hydrocarbons Surrogates			. 5					
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E601/VA	1.0	%	81.3	85.4	85.2	79.0	79.6

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Work Order : YL2400874 Amendment 1
Client : Stantec Consulting Ltd.

Project : 123515016



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					2-013	2-010	2-012	2-011	2-006
			Client samp	ling date / time	10-Jul-2024 10:05	10-Jul-2024 10:55	10-Jul-2024 12:10	10-Jul-2024 13:15	10-Jul-2024 10:50
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400874-001	YL2400874-002	YL2400874-003	YL2400874-004	YL2400874-005
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Dichlorotoluene, 3,4-		E581.VH+F1/ VA	1.0	%	119	117	115	121	121
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611A/VA	1.0	%	75.6	75.3	72.0	70.4	75.3
Difluorobenzene, 1,4-	540-36-3	E611A/VA	1.0	%	97.9	96.4	98.4	96.1	98.6

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

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

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Work Order YL2400874 Amendment 1 Stantec Consulting Ltd. 123515016 Client

Project



Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					2-019	2-003	2-004	2-001	2-002
Client sampling date / time					10-Jul-2024 00:00	10-Jul-2024 12:15	10-Jul-2024 13:10	10-Jul-2024 14:10	10-Jul-2024 15:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400874-006	YL2400874-007	YL2400874-008	YL2400874-009	YL2400874-010
					Result	Result	Result	Result	Result
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	167	801	250	317	536
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	6.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	3.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	173	801	250	317	536
Conductivity		E100/VA	2.0	μS/cm	570	2180	822	2630	6310
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	296	1190	386	1570	1290
pH		E108/VA	0.10	pH units	8.39	7.42	7.67	7.43	7.69
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	420	1860	628	2600	5390
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	<1.0	39.8	15.7	56.9	34.6
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	292	1170	375	1550	1290
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	<0.0050	1.38	0.289	1.10	3.03
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	0.87	33.0	3.42	11.7	284
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	3.71	<0.100 DLDS	<0.0250 DLDS	<0.100 DLDS	<0.250 DLDS
		A							
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L	16.4	<0.443	<0.111	<0.443	<1.11
Nitrata + Nitrita (aa N)		VA	0.0050	ma (/)	3.71	<0.102	<0.0255	<0.102	<0.255
Nitrate + Nitrite (as N)		EC235.N+N/V	0.0050	mg/L	3.71	<0.102	<0.0255	<0.102	\0.255
Nitrite (as N)	14797-65-0	E235.NO2-L/V	0.0010	mg/L	0.0014	<0.0200 DLDS	0.0053	<0.0200 DLDS	<0.0500 DLDS
		A		Ü					
Nitrite (as NO2)	14797-65-0	EC235.NO2A/	0.0030	mg/L	0.0046	<0.0656	0.0174	<0.0656	<0.164
		VA	0.0040		0.0407	0.0040	0.0040	0.0040	
Phosphate, ortho-, dissolved (as P)	14265-44-2		0.0010	mg/L	0.0137	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total		E372-U/VA	0.0020	mg/L	0.0176	0.121	0.0204	0.0125	0.126
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	127	601	217	1480	3450
Organic / Inorganic Carbon		5055 1 0 4	0.50		1.10	40.4	40.7	0.00	40.0
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	4.16	18.4	10.7	3.38	12.8
Total Metals									
Aluminum, total	7429-90-5		0.0030	mg/L	0.0048	0.0128	0.0459	0.0998	0.0309
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00471	<0.00010	0.00020	<0.00020 DLA	<0.00050 DLA

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Work Order YL2400874 Amendment 1 Stantec Consulting Ltd. 123515016 Client

Project



Analytical Results

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				2-019	2-003	2-004	2-001	2-002
		Client samp	ling date / time	10-Jul-2024 00:00	10-Jul-2024 12:15	10-Jul-2024 13:10	10-Jul-2024 14:10	10-Jul-2024 15:00
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400874-006	YL2400874-007	YL2400874-008	YL2400874-009	YL2400874-010
				Result	Result	Result	Result	Result
Total Metals								
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00379	0.0181	0.0283	0.0108	0.0756
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0247	0.242	0.0340	0.0202	0.0244
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000200 DLA	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000100 DLA	<0.000250 DLA
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010	0.106	0.025	0.143	0.145
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	0.0000129	<0.0000050	0.0000521	0.000269	0.00153
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	103	334	127	436	380
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010	<0.000010	0.000013	0.000028	<0.000050 DLA
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	<0.00050	0.00054	<0.00100 DLA	<0.00250 DLA
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.00019	0.0198	0.00752	0.0138	0.369
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00122	<0.00050	0.00249	<0.00100 DLA	0.00269
Iron, total	7439-89-6 E420/VA	0.010	mg/L	0.018	15.9	7.81	43.0	21.3
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	<0.000050	0.00113	0.000428	0.00139
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0018	0.0300	0.0030	0.0265	0.0364
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	9.55	87.4	16.8	116	82.8
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.0134	3.89	5.34	1.12	10.5
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.00609	0.000774	0.00178	0.000895	0.00506
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.00203	0.00170	0.0182	0.00681	0.624
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	0.128	<0.050	<0.100 DLA	<0.250 DLA
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.66	23.1	4.06	48.8	71.5
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00102	0.00148	0.00210	0.00455	0.00664
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.00186	0.000186	0.000092	<0.000100 DLA	0.000665
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	4.87	11.3	6.35	11.8	10.0
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	<0.000010	0.000027	<0.000020 DLA	0.000051
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	3.39	113	17.1	71.4	1260
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.352	2.25	0.424	4.54	3.56
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	45.4	214	70.9	540	1120
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020	0.00040	<0.00020	0.00059	<0.00100 DLA
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	0.000010	<0.000010	<0.000010	<0.000020 DLA	<0.000050 DLA
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00030 DLM	<0.00050 DLA

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Work Order YL2400874 Amendment 1 Stantec Consulting Ltd. 123515016 Client

Project



Analytical Results

Sub-Matrix: Water		Cli	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				2-019	2-003	2-004	2-001	2-002
		Client samp	ling date / time	10-Jul-2024 00:00	10-Jul-2024 12:15	10-Jul-2024 13:10	10-Jul-2024 14:10	10-Jul-2024 15:00
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400874-006	YL2400874-007	YL2400874-008	YL2400874-009	YL2400874-010
				Result	Result	Result	Result	Result
Total Metals								
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00020 DLA	<0.00050 DLA
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	<0.00030	<0.00180 DLM	0.00043	<0.00060 DLA	<0.00150 DLA
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010	0.00015	<0.00010	0.00112	0.00070
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.00322	0.0121	0.000989	0.000864	0.0112
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050	0.00122	<0.00050	<0.00100 DLA	<0.00250 DLA
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	<0.0030	<0.0030	0.0046	0.0458	1.83
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020	0.00343	<0.00040 DLM	<0.00040 DLA	0.00155
Dissolved Metals								
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	101	322	122	430	389
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	9.74	88.5	17.1	116	78.4
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	1.76	23.8	4.36	48.2	70.5
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	3.27	113	17.3	72.2	1260
Dissolved metals filtration location	EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	3.38	<0.50
Ethylbenzene	100-41-4 E611A/VA	0.50	μg/L	<0.50	<0.50	2.78	<0.50	<0.50
Toluene	108-88-3 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	3.15	<0.50
Xylene, m+p-	179601-23-1 E611A/VA	0.40	μg/L	<0.40	<0.40	3.10	0.99	<0.40
Xylene, o-	95-47-6 E611A/VA	0.30	μg/L	<0.30	<0.30	<0.30	0.52	<0.30
Xylenes, total	1330-20-7 E611A/VA	0.50	μg/L	<0.50	<0.50	3.10	1.51	<0.50
Hydrocarbons								
F1 (C6-C10)	E581.VH+F1/	100	μg/L	<100	<100	110	<100	<100
F2 (C10-C16)	VA E601/VA	300	ua/l	<300	<300	840	<300	<300
F3 (C16-C34)	E601/VA	300	μg/L	<300	<300	<300	<300	<300 <300
F4 (C34-C50)	E601/VA	300	μg/L	<300	<300	<300	<300	<300 <300
F1-BTEX	E05000/A	100	μg/L	<100	<100	104	<100	<100
	EC580/VA	100	μg/L	~100	~100	104	100	\100
Hydrocarbons Surrogates	392-83-6 E601/VA	1.0	0/	78.2	83.1	85.3	82.6	94.0
Bromobenzotrifluoride, 2- (F2-F4 surrogate)		1.0	%	78.2 109	93.0	98.5	98.2	84.9
Dichlorotoluene, 3,4-	95-75-0 E581.VH+F1/ VA	1.0	%	109	93.0	98.5	98.2	97.3

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Work Order : YL2400874 Amendment 1
Client : Stantec Consulting Ltd.

Project : 123515016



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					2-019	2-003	2-004	2-001	2-002
			Client samp	ling date / time	10-Jul-2024 00:00	10-Jul-2024 12:15	10-Jul-2024 13:10	10-Jul-2024 14:10	10-Jul-2024 15:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400874-006	YL2400874-007	YL2400874-008	YL2400874-009	YL2400874-010
					Result	Result	Result	Result	Result
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611A/VA	1.0	%	72.0	80.5	74.7	75.1	74.1
Difluorobenzene, 1,4-	540-36-3	E611A/VA	1.0	%	98.0	96.2	96.4	96.9	95.8

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : **YL2400874** Page : 1 of 30

Amendment :1

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address : 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 2P4 Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 : 1 867 445 7143

 Project
 : 123515016
 Date Samples Received
 : 11-Jul-2024 09:40

 Project
 : 123515016
 Date Samples Received
 : 11-Jul-2024 09:40

 PO
 : -- Issue Date
 : 15-Aug-2024 11:52

C-O-C number : ---Sampler : ---Site :

Quote number ;YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received :10

No. of samples analysed :10

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

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

<u>No</u> Quality Control Sample Frequency Outliers occur.

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Work Order : YL2400874 Amendment 1
Client : Stantec Consulting Ltd.

Project : 123515016

Analyte Group: Analytical Method

Anions and Nutrients : Ammonia by Fluorescence

Amber glass total (sulfuric acid) GLG-2024-00002-011

Container / Client Sample ID(s)

Matrix: Water



Eval

Evaluation: **x** = Holding time exceedance; ✓ = Within Holding Time

Analysis Date

16-Jul-2024

28 days

6 days

Analysis

Holding Times

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.

Sampling Date

Method

E298

Extraction / Preparation

days

5 days

Preparation

15-Jul-2024

Holding Times

Eval

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.

• • • • • • • • • • • • • • • • • • • •			rreparation		9		7 7 7 2		,	
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00002-001	E298	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00002-002	E298	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	√
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00002-003	E298	10-Jul-2024	15-Jul-2024	28	5 days	✓	16-Jul-2024	28 days	6 days	✓

				uays						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)	F000	40 1.1 2024	45 1-1 0004		5 1	,	40 101 0004	00 1	0.1	
GLG-2024-00002-012	E298	10-Jul-2024	15-Jul-2024	28 days	5 days	√	16-Jul-2024	28 days	6 days	•
				dayo						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00002-004	E298	10-Jul-2024	15-Jul-2024	28	5 days	✓	17-Jul-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00002-006	E298	10-Jul-2024	15-Jul-2024	28	5 days	✓	16-Jul-2024	28 days	7 days	✓
				days						

10-Jul-2024

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Work Order : YL2400874 Amendment 1
Client : Stantec Consulting Ltd.

Project : 123515016



Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	7 Times Actual	Eval
nions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00002-010	E298	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	7 days	✓
nions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00002-013	E298	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	7 days	✓
nions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00002-019	E298	10-Jul-2024	15-Jul-2024	28 days	5 days	1	16-Jul-2024	28 days	7 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-001	E235.CI	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-002	E235.CI	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-004	E235.Cl	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-011	E235.CI	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
nions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-003	E235.CI	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	√
nions and Nutrients : Chloride in Water by IC									'	
HDPE GLG-2024-00002-006	E235.CI	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓

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Matrix: Water					Ev	valuation: 🗴 =	Holding time exce	edance ; 🔻	= Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-010	E235.CI	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC									,	
HDPE GLG-2024-00002-012	E235.CI	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-013	E235.CI	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-019	E235.CI	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-001	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-002	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-003	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	x EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-004	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-006	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT

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Matrix: Water					Ev	valuation: 🗴 =	Holding time exce	edance ; •	✓ = Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)			1		I				
HDPE GLG-2024-00002-010	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	x EHT	16-Jul-2024	3 days	5 days	± EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-011	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	# EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-012	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	# EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-013	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE GLG-2024-00002-019	E378-U	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-001	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-002	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)									<u>'</u>	
HDPE GLG-2024-00002-003	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-004	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	x EHT

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Matrix: Water					Ev	/aluation: × =	Holding time exce	edance ;	✓ = Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	g Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-006	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-010	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	x EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-011	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-012	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-013	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	# EHT	16-Jul-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00002-019	E235.NO3-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-001	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	x EHT	16-Jul-2024	3 days	5 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-002	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-003	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	# EHT

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Matrix: Water					Ev	aluation: 🗴 =	Holding time exce	edance ; 🛚	= Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	eparation			Analys	sis	
Container / Client Sample ID(s)			Preparation		Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level) HDPE										
GLG-2024-00002-004	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-006	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-010	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-011	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-012	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	x EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-013	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-019	E235.NO2-L	10-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-001	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	√
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-002	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓

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Matrix: Water					Ev	valuation: × =	Holding time exce	edance ; •	✓ = Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	eparation			Analys	sis	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	7 Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-004	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-011	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-003	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	~
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-006	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-010	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	6 days	1	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-012	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-013	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	√
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-019	E235.SO4	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	√
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-001	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	√

10 of 30 YL2400874 Amendment 1 Work Order Client Stantec Consulting Ltd.



Matrix: Water					Ev	aluation: 🗴 =	Holding time exce	edance ; 🔻	= Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-002	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-003	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-004	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-006	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-010	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-011	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-012	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-013	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	4	20-Jul-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-019	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	20-Jul-2024	28 days	10 days	✓

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Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)		, J	Preparation	Holdin	g Times	Eval	Analysis Date	Holdin	g Times	Eval
,			Date	Rec	Actual		/a.ye.e Zate	Rec	Actual	
issolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00002-001	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00002-002	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	√
issolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00002-003	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	✓
issolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00002-004	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS									'	
HDPE - dissolved (lab preserved) GLG-2024-00002-006	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00002-010	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	√
issolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00002-011	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS									<u>'</u>	
HDPE - dissolved (lab preserved) GLG-2024-00002-012	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	✓
issolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) GLG-2024-00002-013	E421	10-Jul-2024	17-Jul-2024	180 days	7 days	✓	17-Jul-2024	180 days	7 days	✓

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latrix: Water		_			Ev	/aluation: 🗴 =	Holding time exce	edance ; 🔻	= Within	Holding Ti
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00002-019	E421	10-Jul-2024	17-Jul-2024	180	7 days	✓	17-Jul-2024	180	7 days	✓
				days				days		
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-001	E601	10-Jul-2024	17-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID				1				1		
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-002	E601	10-Jul-2024	17-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-003	E601	10-Jul-2024	17-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	1 days	1
				days	,					
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)				I			<u> </u>	T		
GLG-2024-00002-004	E601	10-Jul-2024	17-Jul-2024	14	7 days	√	18-Jul-2024	40 days	1 days	1
GLG-2024-00002-004	2001	10-041-2024	17-041-202-	days	r days	·	10-041-202-	40 days	1 days	•
				uays						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID							1			
Amber glass/Teflon lined cap (sodium bisulfate)	E601	10-Jul-2024	17-Jul-2024		7 days	✓	18-Jul-2024	40 days	1 days	1
GLG-2024-00002-006	E001	10-Jul-2024	17-Jul-2024	14	7 days	•	10-Jul-2024	40 days	Tuays	•
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)	F004	40 101 0004	47 1 0004		7 4	√	40 101 0004	40	4 -1	,
GLG-2024-00002-010	E601	10-Jul-2024	17-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-011	E601	10-Jul-2024	17-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-012	E601	10-Jul-2024	17-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	1 days	✓
				days						

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Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)		'	Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual		, =	Rec	Actual	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-013	E601	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	18-Jul-2024	40 days	1 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)							I			
GLG-2024-00002-019	E601	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	18-Jul-2024	40 days	1 days	✓
lydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-001	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
lydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-002	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-003	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID				,-						
Glass vial (sodium bisulfate) GLG-2024-00002-004	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	√
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-006	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-010	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-011	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓

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Matrix: Water					Εν	/aluation: 🗴 =	Holding time exce	edance ; 🔻	/ = Within	Holding Tin
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-012	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
				uays						
Hydrocarbons : VH and F1 by Headspace GC-FID				1	I		1	T		
Glass vial (sodium bisulfate) GLG-2024-00002-013	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-019	E581.VH+F1	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	√
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-001	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	15-Jul-2024	28 days	5 days	√
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-002	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	√	15-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-003	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	1	15-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-004	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	1	15-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-006	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	15-Jul-2024	28 days	5 days	4
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)								'	
Amber glass total (sulfuric acid) GLG-2024-00002-010	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	15-Jul-2024	28 days	5 days	√

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Matrix: Water					Εν	/aluation: 🗴 =	Holding time excee	edance ; 🔻	= Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-011	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	15-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-012	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	1	15-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-013	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	15-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-019	E355-L	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	15-Jul-2024	28 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00002-001	E290	10-Jul-2024	16-Jul-2024	14 days	5 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00002-002	E290	10-Jul-2024	16-Jul-2024	14 days	5 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00002-004	E290	10-Jul-2024	16-Jul-2024	14 days	5 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration									'	
HDPE GLG-2024-00002-011	E290	10-Jul-2024	16-Jul-2024	14 days	5 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00002-003	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓

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nalyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	7 Times Actual	Eval
hysical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00002-006	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
hysical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00002-010	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
hysical Tests : Alkalinity Species by Titration							•			
HDPE GLG-2024-00002-012	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
hysical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00002-013	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
hysical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00002-019	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
hysical Tests : Conductivity in Water										
HDPE GLG-2024-00002-001	E100	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	4
hysical Tests : Conductivity in Water										
HDPE GLG-2024-00002-002	E100	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
hysical Tests : Conductivity in Water										
HDPE GLG-2024-00002-004	E100	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	√
hysical Tests : Conductivity in Water										
HDPE GLG-2024-00002-011	E100	10-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓

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Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin Rec	g Times Actual	Eval	Analysis Date	Holding Rec	Times Actual	Eval
			Date	Kec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water				1	T T					
HDPE GLG-2024-00002-003	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00002-006	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	~
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00002-010	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	~
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00002-012	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00002-013	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	1	16-Jul-2024	28 days	6 days	1
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00002-019	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	√
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-002	E108	10-Jul-2024	16-Jul-2024	0.25 hrs	129 hrs	* EHTR-FM	16-Jul-2024	0.25 hrs	149 hrs	# EHTR-FI
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-001	E108	10-Jul-2024	16-Jul-2024	0.25 hrs	130 hrs	* EHTR-FM	16-Jul-2024	0.25 hrs	150 hrs	# EHTR-F
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-011	E108	10-Jul-2024	16-Jul-2024	0.25 hrs	131 hrs	≭ EHTR-FM	16-Jul-2024	0.25 hrs	150 hrs	# EHTR-FN

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Matrix: Water					Εν	raluation: ≭ =	Holding time excee	edance ; 🔻	✓ = Withir	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00002-004	E108	10-Jul-2024	16-Jul-2024	0.25	131 hrs	*	16-Jul-2024	0.25	151 hrs	se .
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00002-003	E108	10-Jul-2024	16-Jul-2024	0.25	132 hrs	*	16-Jul-2024	0.25	151 hrs	*
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00002-012	E108	10-Jul-2024	16-Jul-2024	0.25	132 hrs	*	16-Jul-2024	0.25	152 hrs	3 0
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00002-006	E108	10-Jul-2024	16-Jul-2024	0.25	133 hrs	*	16-Jul-2024	0.25	153 hrs	\$ c
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00002-010	E108	10-Jul-2024	16-Jul-2024	0.25	133 hrs	32	16-Jul-2024	0.25	153 hrs	y:
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00002-019	E108	10-Jul-2024	16-Jul-2024	0.25	133 hrs	×	16-Jul-2024	0.25	153 hrs	×
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00002-013	E108	10-Jul-2024	16-Jul-2024	0.25	134 hrs	×	16-Jul-2024	0.25	154 hrs	3 2
				hrs		EHTR-FM		hrs	_	EHTR-FM
Physical Tasta : TDS by Cravimetry / Lave Lavel										
Physical Tests : TDS by Gravimetry (Low Level) HDPE							I			
GLG-2024-00002-001	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	√
010 101 1000 100 1	21022	10 001 2024					77 041 2024	. days	. days	·
Physical Tasta - TDO by Considerator (Land Land)										
Physical Tests : TDS by Gravimetry (Low Level) HDPE										
GLG-2024-00002-002	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	√
9L9-2024-00002-002	L 102-L	10-041-2024					17-Jui-2024	, uays	, uays	•

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Matrix: Water					Ev	aluation: 🗴 =	Holding time excee	edance ; 🕥	/ = Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys	sis	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	Times Actual	Eval	Analysis Date	Holding Rec	7 Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GLG-2024-00002-003	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GLG-2024-00002-004	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GLG-2024-00002-006	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GLG-2024-00002-010	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GLG-2024-00002-011	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GLG-2024-00002-012	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)									I	
HDPE GLG-2024-00002-013	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GLG-2024-00002-019	E162-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GLG-2024-00002-001	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓

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Matrix: Water					Ev	aluation: × =	Holding time exce	edance ; 🔹	✓ = Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys	sis	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00002-002	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]	E400 I	40 1.1 0004					47 1.1 0004	7.1	7.1	,
GLG-2024-00002-003	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)				I			I			
HDPE [TSS-WB] GLG-2024-00002-004	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	√
010-2024-00002-004	2100-2	10-041-2024					17-041-202-	7 days	r days	•
Physical Tasks (TOO by Organizator (Land Land))										
Physical Tests : TSS by Gravimetry (Low Level) HDPE [TSS-WB]										
GLG-2024-00002-006	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	1
010 101 100001 000								,	, .	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00002-010	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00002-011	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]									_	_
GLG-2024-00002-012	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	1
GLG-2024-00002-013	E 10U-L	10-Jul-2024					17-Jul-2024	7 days	7 days	▼
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GLG-2024-00002-019	E160-L	10-Jul-2024					17-Jul-2024	7 days	7 days	1
010-202-00002-010	2.002	.0 041 2024					77-041-2024	, days	, days	•

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Matrix: Water					Εν	aluation: 🗴 =	Holding time excee	edance ;	✓ = Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation			Analy	sis	
Container / Client Sample ID(s)			Preparation Date	Holdin Rec	g Times Actual	Eval	Analysis Date	Holding Rec	g Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-001	E508	10-Jul-2024	17-Jul-2024	0 hrs	171 hrs	* UCP	17-Jul-2024	0 hrs	171 hrs	x UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-002	E508	10-Jul-2024	17-Jul-2024	0 hrs	171 hrs	x UCP	17-Jul-2024	0 hrs	171 hrs	* UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-004	E508	10-Jul-2024	17-Jul-2024	0 hrs	172 hrs	x UCP	17-Jul-2024	0 hrs	172 hrs	x UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-011	E508	10-Jul-2024	17-Jul-2024	0 hrs	172 hrs	x UCP	17-Jul-2024	0 hrs	172 hrs	x UCP
Total Metals : Total Mercury in Water by CVAAS									· · · ·	
HDPE GLG-2024-00002-003	E508	10-Jul-2024	17-Jul-2024	0 hrs	173 hrs	* UCP	17-Jul-2024	0 hrs	173 hrs	x UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-012	E508	10-Jul-2024	17-Jul-2024	0 hrs	173 hrs	x UCP	17-Jul-2024	0 hrs	173 hrs	x UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-006	E508	10-Jul-2024	17-Jul-2024	0 hrs	175 hrs	x UCP	17-Jul-2024	0 hrs	175 hrs	x UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-010	E508	10-Jul-2024	17-Jul-2024	0 hrs	175 hrs	* UCP	17-Jul-2024	0 hrs	175 hrs	x UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-013	E508	10-Jul-2024	17-Jul-2024	0 hrs	175 hrs	x UCP	17-Jul-2024	0 hrs	175 hrs	x UCP

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nalyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analy	sis	
Container / Client Sample ID(s)	Would a	Camping Date			g Times	Eval	Analysis Date		g Times	Eval
Container / Chort Cample 15(5)			Preparation Date	Rec	Actual	Lvai	Analysis Date	Rec	Actual	Lvai
			Date	7100	rictual			7100	Hotaur	
otal Metals : Total Mercury in Water by CVAAS				I						
HDPE	E508	10-Jul-2024	17-Jul-2024	0 hrs	175 hrs	×	17-Jul-2024	0 hrs	175 hrs	*
GLG-2024-00002-019	E306	10-Jul-2024	17-Jul-2024	UTIIS	1751115	UCP	17-Jul-2024	UTIIS	1751115	UCP
						UCP				UCP
otal Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00002-001	E420	10-Jul-2024	17-Jul-2024	180	7 days	✓	18-Jul-2024	180	8 days	✓
				days				days		
otal Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00002-002	E420	10-Jul-2024	17-Jul-2024	180	7 days	✓	18-Jul-2024	180	8 days	✓
				days				days		
atal Matala a Tatal Matala in Water by ODO JODNO				,				,		
otal Metals : Total Metals in Water by CRC ICPMS				1						
HDPE - total (lab preserved)	E420	10-Jul-2024	17-Jul-2024	400	7 days	✓	18-Jul-2024	400	8 days	1
GLG-2024-00002-003	E420	10-Jul-2024	17-Jul-2024	180	7 days	•	18-Jul-2024	180	8 days	•
				days				days		
otal Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00002-004	E420	10-Jul-2024	17-Jul-2024	180	7 days	✓	18-Jul-2024	180	8 days	✓
				days				days		
otal Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00002-006	E420	10-Jul-2024	17-Jul-2024	180	7 days	✓	18-Jul-2024	180	8 days	✓
				days	'			days		
ALM CL. T. CLM CL. L. W. C. L. ODO JODNO								, -		
otal Metals : Total Metals in Water by CRC ICPMS				<u> </u>						
HDPE - total (lab preserved)	E400	40 1.4 0004	47 1.1 2024		7 -1	✓	40 1 0004		0 -1	√
GLG-2024-00002-010	E420	10-Jul-2024	17-Jul-2024	180	7 days	∀	18-Jul-2024	180	8 days	•
				days				days		
otal Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00002-011	E420	10-Jul-2024	17-Jul-2024	180	7 days	✓	18-Jul-2024	180	8 days	✓
				days				days		
otal Metals : Total Metals in Water by CRC ICPMS				1						
HDPE - total (lab preserved)										
GLG-2024-00002-012	E420	10-Jul-2024	17-Jul-2024	180	7 days	✓	18-Jul-2024	180	8 days	1
GLG-2027-00002-012		10 001 2027	17-001-202 4	100	, aays	•	10-041-2024	100	Juays	•

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Matrix: Water					Ev	/aluation: ≭ =	Holding time exce	edance ; 🔻	/ = Within	Holding Tin
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	eparation		Analysis			
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00002-013	E420	10-Jul-2024	17-Jul-2024	180	7 days	✓	18-Jul-2024	180	8 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00002-019	E420	10-Jul-2024	17-Jul-2024	180	7 days	✓	18-Jul-2024	180	8 days	✓
				days				days		
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-001	E611A	10-Jul-2024	16-Jul-2024	14	6 days	✓	16-Jul-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-002	E611A	10-Jul-2024	16-Jul-2024	14	6 days	1	16-Jul-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS				,						
Glass vial (sodium bisulfate)										
GLG-2024-00002-003	E611A	10-Jul-2024	16-Jul-2024	14	6 days	1	16-Jul-2024	14 days	6 days	✓
				days					,	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-004	E611A	10-Jul-2024	16-Jul-2024	14	6 days	✓	16-Jul-2024	14 days	6 davs	✓
				days	,					
Volatile Organic Compounds : BTEX by Headspace GC-MS				,						
Glass vial (sodium bisulfate)										
GLG-2024-00002-006	E611A	10-Jul-2024	16-Jul-2024	14	6 days	1	16-Jul-2024	14 days	6 days	✓
010 101 10001 000				days	, -				, -	
Voletile Organia Compounds : DTEV by Handaness CC MC				aayo						
Volatile Organic Compounds : BTEX by Headspace GC-MS Glass vial (sodium bisulfate)							I			
GLG-2024-00002-010	E611A	10-Jul-2024	16-Jul-2024	14	6 days	√	16-Jul-2024	14 days	6 days	✓
SES 2027-00002-010	2011/	10 001-202-7	10 041-2027	days	Jaays		10 341-202-4	days	o dayo	•
Valatila Ovranja Carana unda i BTEV hu Haadanaaa CC MO				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS Glass vial (sodium bisulfate)										
GLG-2024-00002-011	E611A	10-Jul-2024	16-Jul-2024	14	6 days	1	16-Jul-2024	14 days	6 days	√
OLO-2024-00002-011	LOTIA	10-041-2024	10-341-2024		o days	,	10-341-2024	1- uays	o days	•
				days						

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Client : Stantec Consulting Ltd.

Project : 123515016



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

							riolaning annio oxiool	,		
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation					
Container / Client Sample ID(s)			Preparation	Holding Times Eval		Eval	Analysis Date Holdin		ing Times Eva	
			Date	Rec	Actual			Rec	Actual	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-012	E611A	10-Jul-2024	16-Jul-2024	14	6 days	✓	16-Jul-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-013	E611A	10-Jul-2024	16-Jul-2024	14	6 days	✓	16-Jul-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-019	E611A	10-Jul-2024	16-Jul-2024	14	6 days	✓	16-Jul-2024	14 days	6 days	✓
				days						

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).

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

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Project : 123515016



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		Evaluati	on: × = QC frequ		ecification; ✓ = 0		<u> </u>
Quality Control Sample Type				ount		Frequency (%)	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1546180	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1545883	1	19	5.2	5.0	✓
BTEX by Headspace GC-MS	E611A	1546838	1	20	5.0	5.0	✓
Chloride in Water by IC	E235.CI	1546182	1	20	5.0	5.0	✓
Conductivity in Water	E100	1546181	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1546305	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1546188	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1546183	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1546184	1	20	5.0	5.0	✓
pH by Meter	E108	1546179	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1546185	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1550004	1	12	8.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1550476	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1546280	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1545881	1	18	5.5	5.0	1
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545882	1	18	5.5	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1546837	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1546180	1	20	5.0	5.0	1
Ammonia by Fluorescence	E298	1545883	1	19	5.2	5.0	1
BTEX by Headspace GC-MS	E611A	1546838	1	20	5.0	5.0	√
CCME PHCs - F2-F4 by GC-FID	E601	1548508	2	23	8.7	5.0	√
Chloride in Water by IC	E235.CI	1546182	1	20	5.0	5.0	✓
Conductivity in Water	E100	1546181	1	20	5.0	5.0	√
Dissolved Metals in Water by CRC ICPMS	E421	1546305	1	20	5.0	5.0	1
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1546188	1	10	10.0	5.0	√
Nitrate in Water by IC (Low Level)	E235.NO3-L	1546183	1	20	5.0	5.0	1
Nitrite in Water by IC (Low Level)	E235.NO2-L	1546184	1	20	5.0	5.0	<u> </u>
pH by Meter	E108	1546179	1	20	5.0	5.0	√
Sulfate in Water by IC	E235.SO4	1546185	1	20	5.0	5.0	√
TDS by Gravimetry (Low Level)	E162-L	1550004	1	12	8.3	5.0	<u>√</u>
Total Mercury in Water by CVAAS	E508	1550476	1	20	5.0	5.0	<u>√</u>
Total Metals in Water by CRC ICPMS	E420	1546280	1	20	5.0	5.0	<u> </u>
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1545881	1	18	5.5	5.0	<u> </u>
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545882	1	18	5.5	5.0	<u>√</u>
TSS by Gravimetry (Low Level)	E160-L	1549992	1	10	10.0	5.0	<u> </u>

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Project : 123515016



Matrix: Water		Evaluati	ion: × = QC freque	ency outside spe	ecification; ✓ = 0		
Quality Control Sample Type				ount		Frequency (%)	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Control Samples (LCS) - Continued							
VH and F1 by Headspace GC-FID	E581.VH+F1	1546837	1	20	5.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1546180	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1545883	1	19	5.2	5.0	✓
BTEX by Headspace GC-MS	E611A	1546838	1	20	5.0	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1548508	2	23	8.7	5.0	✓
Chloride in Water by IC	E235.Cl	1546182	1	20	5.0	5.0	✓
Conductivity in Water	E100	1546181	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1546305	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1546188	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1546183	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1546184	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1546185	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1550004	1	12	8.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1550476	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1546280	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1545881	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545882	1	18	5.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1549992	1	10	10.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1546837	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1545883	1	19	5.2	5.0	✓
BTEX by Headspace GC-MS	E611A	1546838	1	20	5.0	5.0	✓
Chloride in Water by IC	E235.Cl	1546182	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1546305	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1546188	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1546183	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1546184	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1546185	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1550476	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1546280	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1545881	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545882	1	18	5.5	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1546837	1	20	5.0	5.0	√

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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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Vancouver			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Vancouver			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Vancouver			brackish waters) may produce a positive bias by this method. Alternate analysis
				methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			
Chloride in Water by IC	E235.CI	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Sulfate in Water by IC	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Alkalinity Species by Titration	E290	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Vancouver			

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
VH and F1 by Headspace GC-FID	E581.VH+F1 ALS Environmental - Vancouver	Water	BC MOE Lab Manual / CCME PHC in Soil - Tier 1 (mod)	Volatile Hydrocarbons (VH and F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
	ALO Fordinamental		1	A 1 (1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2
	ALS Environmental - Vancouver			Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply
	vancouver			fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met,
				including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS.
				Samples are prepared in headspace vials and are heated and agitated on the
	ALS Environmental -			headspace autosampler, causing VOCs to partition between the aqueous phase and
	Vancouver			the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100	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
	ALS Environmental - Vancouver			to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially
	vancouver			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	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and
	20100/1			Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers
	ALS Environmental -			to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially
	Vancouver			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.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as
	ALS Environmental -			N) + Nitrate (as N).
	Vancouver			
Nitrite (as N) converted to Nitrite (as NO2)	EC235.NO2A	Water	Calculation	Nitrite by IC measured as N is converted to the NO2 form by calculation.
	2020010271			, ,
	ALS Environmental -			
	Vancouver			
Nitrate (as N) converted to Nitrate (as NO3)	EC235.NO3A	Water	Calculation	Nitrate by IC measured as N is converted to the NO3 form by calculation.
	ALO Fordinancial			
	ALS Environmental - Vancouver			
F1-BTEX	EC580	Water	CCME PHC in Soil - Tier	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene,
	20000		1	ethylbenzene and xylenes (BTEX).
	ALS Environmental -			
	Vancouver			
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALS Environmental -			
	Vancouver			
L	vanicouvei		1	

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Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Total Organic Carbon by Combustion	EP355	Water		Preparation for Total Organic Carbon by Combustion
	ALS Environmental -			
	Vancouver			
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental -			
	Vancouver			
Dissolved Metals Water Filtration	EP421	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental -			
	Vancouver			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the
				headspace autosampler. An aliquot of the headspace is then injected into the
	ALS Environmental -			GC/MS-FID system.
	Vancouver			, and the second
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are
				extracted using a hexane liquid-liquid extraction.
	ALS Environmental -			
	Vancouver			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order : **YL2400874** Page : 1 of 13

Amendment : 1

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address : 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 :1 867 445 7143

 Project
 :123515016
 Date Samples Received
 :11-Jul-2024 09:40

PO :--- Date Analysis Commenced : 15-Jul-2024

C-O-C number :---- Issue Date :15-Aug-2024 11:52 Sampler :---

Site :
Quote number : YI 24-STAC100-0003 Gordon Lake - Phase I I

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP
No. of samples received : 10

Yellowknife NT Canada X1A 2P4

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:

: 10

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

No. of samples analysed

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	
Dan Gebert	Laboratory Analyst	Vancouver Metals, Burnaby, British Columbia	
Ilnaz Badbezanchi	Supervisor - Metals Prep & Mercury	Vancouver Metals, Burnaby, British Columbia	
Janice Leung	Supervisor - Organics Instrumentation	Vancouver Organics, Burnaby, British Columbia	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Inorganics, Burnaby, British Columbia	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia	
Owen Cheng		Vancouver Metals, Burnaby, British Columbia	
Robin Weeks	Team Leader - Metals	Vancouver Inorganics, Burnaby, British Columbia	

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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.

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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	Case Case			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
YL2400874-001	GLG-2024-00002-013	рН		E108	0.10	pH units	7.91	7.92	0.126%	4%	
Physical Tests (QC	Lot: 1546180)										
YL2400874-001	GLG-2024-00002-013	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	40.7	40.7	0.00%	200%	
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		***		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	
		Alkalinity, total (as CaCO3)		E290	1.0	mg/L	40.7	40.7	0.00%	20%	
hysical Tests (QC	Lot: 1546181)	100									
YL2400874-001	GLG-2024-00002-013	Conductivity		E100	2.0	μS/cm	101	99.7	0.899%	10%	
Physical Tests (QC	Lot: 1550004)										
VA24B7120-001		Solids, total dissolved [TDS]		E162-L	15.0	mg/L	540	540	0.0925%	20%	
Anions and Nutrien	ts (QC Lot: 1545882)										
FJ2401973-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0108	0.0107	0.0001	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1545883)										
FJ2401973-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0158	0.0161	0.0003	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1546182)										
YL2400885-001	Anonymous	Chloride	16887-00-6	E235.CI	2.50	mg/L	103	105	2.69%	20%	
Anions and Nutrien	ts (QC Lot: 1546183)										
YL2400885-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0250	mg/L	1.44	1.47	1.93%	20%	
Anions and Nutrien	ts (QC Lot: 1546184)										
YL2400885-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1546185)										
YL2400885-001		Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	78.2	80.3	2.64%	20%	
Anions and Nutrien	ts (QC Lot: 1546188)										
YL2400874-001	GLG-2024-00002-013	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Organic / Inorganic	Carbon (QC Lot: 1545	881)									
-J2401973-001	Anonymous	Carbon, total organic [TOC]		E355-L	0.50	mg/L	2.56	2.41	0.14	Diff <2x LOR	
Total Metals (QC Lo	ot: 1546280)										
FJ2401989-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.663	0.613	7.86%	20%	

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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	Qualifie	
Total Metals (QC Lo	ot: 1546280) - continued											
FJ2401989-001	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00052	0.00050	0.00002	Diff <2x LOR		
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00078	0.00079	0.000009	Diff <2x LOR		
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0597	0.0580	2.76%	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	0.021	0.021	0.00008	Diff <2x LOR		
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000446	0.0000429	0.0000016	Diff <2x LOR		
		Calcium, total	7440-70-2	E420	0.050	mg/L	32.5	33.2	2.12%	20%		
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000069	0.000065	0.000004	Diff <2x LOR		
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00118	0.00113	0.00006	Diff <2x LOR		
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00030	0.00030	0.000003	Diff <2x LOR		
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0150	0.0150	0.0243%	20%		
		Iron, total	7439-89-6	E420	0.010	mg/L	0.347	0.330	5.09%	20%		
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000778	0.000779	0.0965%	20%		
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0061	0.0060	0.00004	Diff <2x LOR		
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	8.24	8.41	2.05%	20%		
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0110	0.0109	1.58%	20%		
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00865	0.00836	3.39%	20%		
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00217	0.00214	0.00003	Diff <2x LOR		
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	0.052	0.002	Diff <2x LOR		
		Potassium, total	7440-09-7	E420	0.050	mg/L	6.64	6.62	0.314%	20%		
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00973	0.0101	3.63%	20%		
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000710	0.000630	11.9%	20%		
		Silicon, total	7440-21-3	E420	0.10	mg/L	3.12	2.96	5.28%	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	13.4	13.6	0.823%	20%		
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.165	0.157	4.89%	20%		
		Sulfur, total	7704-34-9	E420	0.50	mg/L	10.7	10.5	1.82%	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	0.000013	0.000011	0.000002	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	0.00086	0.00084	0.00002	Diff <2x LOR		
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00854	0.00955	11.2%	20%		
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00055	0.00055	0.000002	Diff <2x LOR		

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Sub-Matrix: Water							Labora	tory Duplicate (D	UP) 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 Lo	ot: 1546280) - continued										
FJ2401989-001	Anonymous	Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000720	0.000724	0.548%	20%	
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00295	0.00276	0.00019	Diff <2x LOR	
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0272	0.0268	0.0004	Diff <2x LOR	
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	
Total Metals (QC L	ot: 1550476)										
VA24B6236-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
Dissolved Metals (QC Lot: 1546305)										
FJ2401989-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.050	mg/L	32.2	32.2	0.117%	20%	
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	8.12	8.12	0.0699%	20%	
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	6.35	6.65	4.67%	20%	
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	13.4	13.4	0.475%	20%	
Volatile Organic Co	mpounds (QC Lot: 1546	838)									
KS2402661-003	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Toluene	108-88-3	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	<0.40	<0.40	0	Diff <2x LOR	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	<0.30	<0.30	0	Diff <2x LOR	
Hydrocarbons (QC	Lot: 1546837)										
KS2402661-003	Anonymous	F1 (C6-C10)		E581.VH+F1	100	μg/L	<100	<100	0.0%	30%	

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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

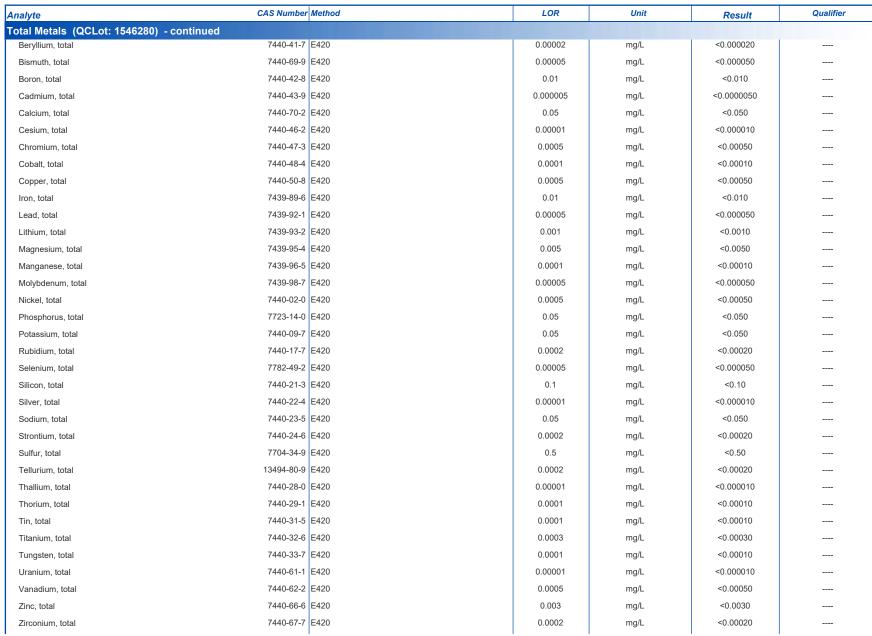
Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1546180)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
Physical Tests (QCLot: 1546181)					
Conductivity	E100	1	μS/cm	1.7	
Physical Tests (QCLot: 1549992)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
Physical Tests (QCLot: 1550004)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
Anions and Nutrients (QCLot: 1545882)					
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	<0.0020	
Anions and Nutrients (QCLot: 1545883)					
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	<0.0050	
Anions and Nutrients (QCLot: 1546182)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
Anions and Nutrients (QCLot: 1546183)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
Anions and Nutrients (QCLot: 1546184)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
Anions and Nutrients (QCLot: 1546185)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
Anions and Nutrients (QCLot: 1546188)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
Organic / Inorganic Carbon (QCLot: 154	5881)				
Carbon, total organic [TOC]	E355-L	0.5	mg/L	<0.50	
Total Metals (QCLot: 1546280)					
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	

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Work Order: YL2400874 Amendment 1
Client: Stantec Consulting Ltd.

Project : 123515016

Sub-Matrix: Water





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Work Order: YL2400874 Amendment 1
Client: Stantec Consulting Ltd.

Project : 123515016

Sub-Matrix: Water



Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
otal Metals (QCLot: 1550476)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.000050	
Dissolved Metals (QCLot: 154630	05)					
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	
olatile Organic Compounds (QC	CLot: 1546838)					
Benzene	71-43-2	E611A	0.5	μg/L	<0.50	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	<0.50	
Toluene	108-88-3	E611A	0.5	μg/L	<0.50	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	<0.40	
Xylene, o-	95-47-6	E611A	0.3	μg/L	<0.30	
Hydrocarbons (QCLot: 1546837)						
F1 (C6-C10)		E581.VH+F1	100	μg/L	<100	
Hydrocarbons (QCLot: 1548508)						
F2 (C10-C16)		E601	100	μg/L	<100	
F3 (C16-C34)		E601	250	μg/L	<250	
F4 (C34-C50)		E601	250	μg/L	<250	
Hydrocarbons (QCLot: 1549431)						
F2 (C10-C16)		E601	100	μg/L	<100	
F3 (C16-C34)		E601	250	μg/L	<250	
F4 (C34-C50)		E601	250	μg/L	<250	

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Work Order: YL2400874 Amendment 1
Client: Stantec Consulting Ltd.

Project : 123515016



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	Matrix: Water					Laboratory Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1546179)									
рН		E108		pH units	7 pH units	100	98.0	102	
Physical Tests (QCLot: 1546180)									
Alkalinity, phenolphthalein (as CaCO3)		E290	1	mg/L	229 mg/L	80.2	75.0	125	
Alkalinity, total (as CaCO3)		E290	1	mg/L	500 mg/L	92.6	85.0	115	
Physical Tests (QCLot: 1546181)									
Conductivity		E100	1	μS/cm	147 μS/cm	97.8	90.0	110	
Physical Tests (QCLot: 1549992)									
Solids, total suspended [TSS]		E160-L	1	mg/L	150 mg/L	90.8	85.0	115	
Physical Tests (QCLot: 1550004)									
Solids, total dissolved [TDS]		E162-L	3	mg/L	1000 mg/L	97.0	85.0	115	
Anions and Nutrients (QCLot: 1545882)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	94.1	80.0	120	
Anions and Nutrients (QCLot: 1545883)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	
Anions and Nutrients (QCLot: 1546182)									
Chloride	16887-00-6	E235.CI	0.5	mg/L	100 mg/L	98.8	90.0	110	
Anions and Nutrients (QCLot: 1546183)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.7	90.0	110	
Anions and Nutrients (QCLot: 1546184)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.1	90.0	110	
Anions and Nutrients (QCLot: 1546185)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.8	90.0	110	
Anions and Nutrients (QCLot: 1546188)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	96.4	80.0	120	
Organic / Inorganic Carbon (QCLot: 1545881)									
Carbon, total organic [TOC]		E355-L	0.5	mg/L	8.57 mg/L	104	80.0	120	
Total Metals (QCLot: 1546280)									
Aluminum, total	7429-90-5		0.003	mg/L	2 mg/L	97.5	80.0	120	
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	100	80.0	120	

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Project 123515016



Sub-Matrix: Water	atrix: Water					Laboratory Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1546280) - continu	ued								
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	99.4	80.0	120	
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	104	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	101	80.0	120	
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	94.6	80.0	120	
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	103	80.0	120	
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	97.1	80.0	120	
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.0	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	99.7	80.0	120	
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	103	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	96.6	80.0	120	
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.1	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	96.6	80.0	120	
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	91.8	80.0	120	
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.6	80.0	120	
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	97.6	80.0	120	
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	95.2	80.0	120	
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	98.7	80.0	120	
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.1	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	105	80.0	120	
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	99.6	80.0	120	
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	102	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	99.0	80.0	120	
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.6	80.0	120	
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.0	80.0	120	
Tungsten, total	7440-33-7		0.0001	mg/L	0.1 mg/L	103	80.0	120	
Uranium, total	7440-61-1		0.00001	mg/L	0.005 mg/L	106	80.0	120	
Vanadium, total	7440-62-2		0.0005	mg/L	0.5 mg/L	99.6	80.0	120	
Zinc, total	7440-66-6		0.003	mg/L	0.5 mg/L	93.8	80.0	120	
Enro, cooli	7 00-0	I	0.000	∌, ⊏	S.S mg/E	33.0	55.5	1 .20	1

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Sub-Matrix: Water	Matrix: Water				Laboratory Control Sample (LCS) Report					
					Spike	Recovery (%)	Recovery	Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier	
Total Metals (QCLot: 1546280) - continue	d									
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	98.0	80.0	120		
Total Metals (QCLot: 1550476)									'	
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120		
Dissolved Metals (QCLot: 1546305)										
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.7	80.0	120		
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	98.0	80.0	120		
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	100	80.0	120		
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120		
Volatile Organic Compounds (QCLot: 154	6838)									
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	94.5	70.0	130		
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	94.5	70.0	130		
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	93.9	70.0	130		
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	91.4	70.0	130		
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	91.2	70.0	130		
Hydrocarbons (QCLot: 1546837)										
F1 (C6-C10)		E581.VH+F1	100	μg/L	6310 μg/L	75.2	70.0	130		
Hydrocarbons (QCLot: 1548508)										
F2 (C10-C16)		E601	100	μg/L	3540 μg/L	107	70.0	130		
F3 (C16-C34)		E601	250	μg/L	7050 μg/L	91.3	70.0	130		
F4 (C34-C50)		E601	250	μg/L	5050 μg/L	108	70.0	130		
Hydrocarbons (QCLot: 1549431)										
F2 (C10-C16)		E601	100	μg/L	3540 μg/L	106	70.0	130		
F3 (C16-C34)		E601	250	μg/L	7050 μg/L	100	70.0	130		
F4 (C34-C50)		E601	250	μg/L	5050 μg/L	110	70.0	130		

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Client: Stantec Consulting Ltd.

Project : 123515016



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		
					Spi	ke	Recovery (%)	Recovery	Limits (%)	
Laboratory sample	ID Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nut	rients (QCLot: 154588	2)								
FJ2401973-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0493 mg/L	0.05 mg/L	98.7	70.0	130	
Anions and Nut	rients (QCLot: 154588	3)								
FJ2401973-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.101 mg/L	0.1 mg/L	101	75.0	125	
Anions and Nut	rients (QCLot: 154618	2)								
YL2400885-002	Anonymous	Chloride	16887-00-6	E235.CI	104 mg/L	100 mg/L	104	75.0	125	
Anions and Nut	rients (QCLot: 154618	3)								
YL2400885-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125	
Anions and Nut	rients (QCLot: 1546184	4)								
YL2400885-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.516 mg/L	0.5 mg/L	103	75.0	125	
Anions and Nut	rients (QCLot: 154618	5)								
YL2400885-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	
Anions and Nut	rients (QCLot: 154618	3)								
YL2400874-002	GLG-2024-00002-010	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0288 mg/L	0.03 mg/L	96.0	70.0	130	
Organic / Inorga	anic Carbon (QCLot: 1									
FJ2401973-002	Anonymous	Carbon, total organic [TOC]		E355-L	5.11 mg/L	5 mg/L	102	70.0	130	
Total Metals (Q	CLot: 1546280)									
FJ2402014-001	Anonymous	Aluminum, total	7429-90-5	E420	0.185 mg/L	0.2 mg/L	92.4	70.0	130	
		Antimony, total	7440-36-0	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	103	70.0	130	
		Barium, total	7440-39-3	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	
		Beryllium, total	7440-41-7	E420	0.0393 mg/L	0.04 mg/L	98.4	70.0	130	
		Bismuth, total	7440-69-9	E420	0.00932 mg/L	0.01 mg/L	93.2	70.0	130	
		Boron, total	7440-42-8	E420	0.098 mg/L	0.1 mg/L	98.1	70.0	130	
		Cadmium, total	7440-43-9	E420	0.00368 mg/L	0.004 mg/L	92.0	70.0	130	
		Calcium, total	7440-70-2	E420	ND 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	0.0378 mg/L	0.04 mg/L	94.4	70.0	130	
		Cobalt, total	7440-47-3	E420	0.0376 mg/L 0.0184 mg/L	0.04 mg/L 0.02 mg/L	92.0	70.0	130	
		Copper, total	7440-48-4	E420	0.0176 mg/L	0.02 mg/L	88.1	70.0	130	
					· ·	0				
		Iron, total	7439-89-6	E420	1.85 mg/L	2 mg/L	92.7	70.0	130	
		Lead, total	7439-92-1	E420	0.0183 mg/L	0.02 mg/L	91.7	70.0	130	
		Lithium, total	7439-93-2	E420	ND mg/L		ND	70.0	130	
		Magnesium, total	7439-95-4	E420	ND mg/L		ND	70.0	130	
		Manganese, total	7439-96-5	E420	0.0188 mg/L	0.02 mg/L	94.2	70.0	130	
		Molybdenum, total	7439-98-7	E420	0.0219 mg/L	0.02 mg/L	109	70.0	130	

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Project 123515016



Sub-Matrix: Water			ub-Matrix: Water				Matrix Spil	Matrix Spike (MS) Report						
					Spi	ke	Recovery (%)	Recovery	Limits (%)					
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier				
otal Metals (QCI	Lot: 1546280) - con	tinued												
FJ2402014-001	Anonymous	Nickel, total	7440-02-0	E420	0.0354 mg/L	0.04 mg/L	88.4	70.0	130					
		Phosphorus, total	7723-14-0	E420	9.32 mg/L	10 mg/L	93.2	70.0	130					
		Potassium, total	7440-09-7	E420	3.79 mg/L	4 mg/L	94.9	70.0	130					
		Rubidium, total	7440-17-7	E420	0.0185 mg/L	0.02 mg/L	92.3	70.0	130					
		Selenium, total	7782-49-2	E420	0.0435 mg/L	0.04 mg/L	109	70.0	130					
		Silicon, total	7440-21-3	E420	9.69 mg/L	10 mg/L	96.9	70.0	130					
		Silver, total	7440-22-4	E420	0.00393 mg/L	0.004 mg/L	98.3	70.0	130					
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130					
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130					
		Sulfur, total	7704-34-9	E420	ND mg/L		ND	70.0	130					
		Tellurium, total	13494-80-9	E420	0.0434 mg/L	0.04 mg/L	108	70.0	130					
		Thallium, total	7440-28-0	E420	0.00368 mg/L	0.004 mg/L	91.9	70.0	130					
		Thorium, total	7440-29-1	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130					
		Tin, total	7440-31-5	E420	0.0195 mg/L	0.02 mg/L	97.4	70.0	130					
		Titanium, total	7440-32-6	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130					
		Tungsten, total	7440-33-7	E420	0.0198 mg/L	0.02 mg/L	98.8	70.0	130					
		Uranium, total	7440-61-1	E420	ND mg/L		ND	70.0	130					
		Vanadium, total	7440-62-2	E420	0.0992 mg/L	0.1 mg/L	99.2	70.0	130					
		Zinc, total	7440-66-6	E420	0.357 mg/L	0.4 mg/L	89.4	70.0	130					
		Zirconium, total	7440-67-7	E420	0.0445 mg/L	0.04 mg/L	111	70.0	130					
otal Metals (QCI	Lot: 1550476)													
VA24B6236-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000993 mg/L	0 mg/L	99.3	70.0	130					
issolved Metals	(QCLot: 1546305)													
-J2402001-001	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L		ND	70.0	130					
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130					
		Potassium, dissolved	7440-09-7	E421	3.89 mg/L	4 mg/L	97.2	70.0	130					
		Sodium, dissolved	7440-23-5	E421	2.01 mg/L	2 mg/L	100	70.0	130					
olatile Organic C	ompounds (QCLot	t: 1546838)												
KS2402661-003	Anonymous	Benzene	71-43-2	E611A	105 μg/L	100 μg/L	105	60.0	140					
		Ethylbenzene	100-41-4	E611A	102 μg/L	100 μg/L	102	60.0	140					
		Toluene	108-88-3	E611A	102 μg/L	100 μg/L	102	60.0	140					
		Xylene, m+p-	179601-23-1	E611A	202 μg/L	200 μg/L	101	60.0	140					
		Xylene, o-	95-47-6	E611A	101 μg/L	100 μg/L	101	60.0	140					
lydrocarbons (Q	CLot: 1546837)													
KS2402661-004	Anonymous	F1 (C6-C10)		E581.VH+F1	4820 μg/L	6310 µg/L	76.4	60.0	140					



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 14 -

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				FAX	EMAIL MAIL		Select Invoice Distribution:	₹ No	□ Yes	Copy of Invoice with Report	
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Request	Analysis Request				stantec.com	steve.hannington@stantec.com	Email 2			(867) 920-2882	
	Specify Date Required for E2,E or P:	Jate Requirer	Specify I		u@stantec.com	Email 1 or Fax natalle.normandeau@stantec.com	Email 1 or Fax			(204) 509-9864	Phone:
Same day or weekend emergency - contact ALS to confirm TAT and surcharge	sekend emergency - contact /	Same day or we	E2 🗆	FAX	AL MAIL	tion: EMAIL	Select Distribution:			Yellowknife, NT X1A 2P4	
Emergency (1-2 bus, days if received by 3pm) 100% surcharge - contact ALS to confirm TAT	bus, days if received by 3pm	Emergency (1-2	_		whit box checked	Criteria on Report - provide details below if box checked	Criteria on Re			4910 53 St. PO Box 1777	Address:
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business days)	Regular (Standard TAT if received by 3 pm - business days)	Regular (Standa	20	EDD (DIGITAL))⊡EXCEL □	Format: V PDF	Select Report Format:			Stantec Consulting Ltd.	Company:
Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)	Level Below (Rush Turnaro)	Select Service			/ Distribution	Report Format / Distribution	-			And the second second second	Report To

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

If leny water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form. WHITE - LABORATORY COPY YELL YELLOW - CLIENT COPY

ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Work Order : **YL2400890** Page : 1 of 10

Amendment : 2

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau : Oliver Gregg

Address : 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 3T3

 Telephone
 : -- Telephone
 : 1 867 445 7143

 Project
 : Gordon Lake - Phase 1 LTMP - Water
 Date Samples Received
 : 12-Jul-2024 11:40

PO : ---- Date Analysis Commenced : 16-Jul-2024

C-O-C number : ---- Issue Date : 15-Aug-2024 11:51

Sampler : Tarek Ghadieh

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received : 8
No. of samples analysed : 8

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
- Surrogate Control Limits

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
Angelo Salandanan	Lab Assistant	Metals, Burnaby, British Columbia
Janice Leung	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Inorganics, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia

Page : 2 of 10

Work Order : YL2400890 Amendment 2
Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less 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.

Sample Comments

Sample	Client Id	Comment
YL2400890-001	GLG-2024-00002-009	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400890-002	GLG-2024-00002-020	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400890-003	GLG-2024-00002-014	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400890-004	GLG-2024-00002-017	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400890-005	GLG-2024-00002-015	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
YL2400890-006	GLG-2024-00002-016	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

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Page 3 of 10

Work Order YL2400890 Amendment 2 Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Client

Project



Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					2-009	2-020	2-014	2-017	2-015
			Client samp	ling date / time	11-Jul-2024 09:45	11-Jul-2024 00:00	11-Jul-2024 12:30	11-Jul-2024 13:05	11-Jul-2024 13:40
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400890-001	YL2400890-002	YL2400890-003	YL2400890-004	YL2400890-005
					Result	Result	Result	Result	Result
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	41.9	41.8	41.0	41.3	81.5
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	41.9	41.8	41.0	41.3	81.5
Conductivity		E100/VA	2.0	μS/cm	105	105	104	104	182
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	44.0	45.0	42.4	44.1	87.0
рН		E108/VA	0.10	pH units	7.87	7.86	7.86	7.86	8.10
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	62.8	62.2	50.5	50.2	130
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	3.1	3.1	<1.0	<1.0	<1.0
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	45.4	45.3	44.9	42.7	84.8
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	<0.0050	<0.0050	<0.0050	0.0054	0.0199
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	1.43	1.43	1.42	1.42	0.62
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	<0.0050	0.0231	<0.0050	<0.0050	<0.0050
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L	<0.022	0.102	<0.022	<0.022	<0.022
Nitrate + Nitrite (as N)		VA EC235.N+N/V A	0.0050	mg/L	<0.0051	0.0231	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nitrite (as NO2)	14797-65-0	EC235.NO2A/ VA	0.0030	mg/L	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0051	0.0046	0.0037	0.0040	0.0173
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	7.94	7.90	7.72	7.72	8.67
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	2.95	2.70	2.95	2.94	25.0
Total Metals Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0251	0.0251	0.0100	0.0119	0.0165

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YL2400890 Amendment 2 Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Client

Project



Sub-Matrix: Water		Cli	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				2-009	2-020	2-014	2-017	2-015
		Client samp	ling date / time	11-Jul-2024 09:45	11-Jul-2024 00:00	11-Jul-2024 12:30	11-Jul-2024 13:05	11-Jul-2024 13:40
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400890-001	YL2400890-002	YL2400890-003	YL2400890-004	YL2400890-005
				Result	Result	Result	Result	Result
Total Metals								
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00053	0.00053	0.00032	0.00033	0.00479
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.00443	0.00440	0.00459	0.00465	0.0160
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	12.5	12.7	11.9	12.5	22.2
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000021
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	0.00047
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00064	0.00065	0.00055	0.00059	<0.00050
Iron, total	7439-89-6 E420/VA	0.010	mg/L	0.024	0.028	<0.010	<0.010	0.052
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0020	0.0021	0.0020	0.0021	0.0074
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	3.10	3.22	3.07	3.14	7.66
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.00294	0.00310	0.00224	0.00288	0.0271
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000112	0.000109	0.000084	0.000100	0.000097
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.00885
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.65	1.68	1.64	1.66	3.25
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00231	0.00225	0.00213	0.00211	0.00446
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.22	0.23	0.16	0.15	0.25
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	2.33	2.45	2.43	2.38	5.62
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.0475	0.0468	0.0457	0.0460	0.109
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	2.16	2.51	2.61	2.51	3.68
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010

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Work Order : YL2400890 Amendment 2
Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water		Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				2-009	2-020	2-014	2-017	2-015
		Client samp	ling date / time	11-Jul-2024 09:45	11-Jul-2024 00:00	11-Jul-2024 12:30	11-Jul-2024 13:05	11-Jul-2024 13:40
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400890-001	YL2400890-002	YL2400890-003	YL2400890-004	YL2400890-005
				Result	Result	Result	Result	Result
Total Metals								
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	0.00083	0.00086	<0.00030	<0.00030	<0.00030
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.000131	0.000131	0.000106	0.000103	0.000057
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals								
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	12.6	12.6	12.7	11.9	22.3
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	3.38	3.36	3.21	3.16	7.06
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	1.56	1.56	1.51	1.50	2.74
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	2.54	2.55	2.46	2.41	5.24
Dissolved metals filtration location	EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	108-88-3 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1 E611A/VA	0.40	μg/L	<0.40	<0.40	<0.40	<0.40	<0.40
Xylene, o-	95-47-6 E611A/VA	0.30	μg/L	<0.30	<0.30	<0.30	<0.30	<0.30
Xylenes, total	1330-20-7 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Hydrocarbons								
F1 (C6-C10)	E581.VH+F1/	100	μg/L	<100	<100	<100	<100	<100
50 (040 040)	VA	000		-000	-000	-000	-000	-000
F2 (C10-C16)	E601/VA	300	μg/L	<300	<300	<300	<300	<300
F3 (C16-C34)	E601/VA	300	μg/L	<300	<300	<300	<300	<300
F4 (C34-C50)	E601/VA	300	μg/L	<300	<300	<300	<300	<300
F1-BTEX	EC580/VA	100	μg/L	<100	<100	<100	<100	<100
Hydrocarbons Surrogates	200 00 0 TC040/A	4.0	0/	00.7	04.4	00.0	05.4	05.0
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E601/VA	1.0	%	88.7	84.1	89.0	85.1	85.2

Page : 6 of 10

Work Order : YL2400890 Amendment 2
Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					2-009	2-020	2-014	2-017	2-015
			Client samp	ling date / time	11-Jul-2024 09:45	11-Jul-2024 00:00	11-Jul-2024 12:30	11-Jul-2024 13:05	11-Jul-2024 13:40
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400890-001	YL2400890-002	YL2400890-003	YL2400890-004	YL2400890-005
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Dichlorotoluene, 3,4-		E581.VH+F1/ VA	1.0	%	101	103	112	111	107
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611A/VA	1.0	%	79.8	76.8	81.2	72.7	82.9
Difluorobenzene, 1,4-	540-36-3	E611A/VA	1.0	%	97.4	93.9	98.4	94.2	95.7

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

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

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Work Order : YL2400890 Amendment 2
Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water			Cli	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					2-016	2-023	2-022	
			Client samp	ling date / time	11-Jul-2024 14:10	11-Jul-2024 14:15	11-Jul-2024 14:20	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400890-006	YL2400890-007	YL2400890-008	
					Result	Result	Result	
Physical Tests								
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	41.5			
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0			
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0			
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0			
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	41.5			
Conductivity		E100/VA	2.0	μS/cm	103			
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	44.4			
рН		E108/VA	0.10	pH units	7.85			
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	57.2			
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	<1.0			
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	43.8			
Anions and Nutrients								
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	<0.0050			
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	1.42			
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	<0.0050			
		A						
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L	<0.022			
Nitrate + Nitrite (as N)		VA	0.0050	ma (/)	<0.0051			
Nitrate + Nitrite (as N)		EC235.N+N/V Δ	0.0030	mg/L	<0.0051			
Nitrite (as N)	14797-65-0	E235.NO2-L/V	0.0010	mg/L	<0.0010			
		A		Ŭ				
Nitrite (as NO2)	14797-65-0	EC235.NO2A/	0.0030	mg/L	<0.0033			
Discontinue author discontinue (C. D.)	,	VA	0.0040		40.0040			
Phosphate, ortho-, dissolved (as P)	14265-44-2		0.0010	mg/L	<0.0010			
Phosphorus, total		E372-U/VA	0.0020	mg/L	0.0032			
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	7.14			
Organic / Inorganic Carbon		50551040	0.50					
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	2.90			
Total Metals								
Aluminum, total	7429-90-5		0.0030	mg/L	0.0279			
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	<0.00010			

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Work Order : YL2400890 Amendment 2
Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Total Motals	Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
Total Metals	(Matrix: Water)				2-016	2-023	2-022	
Total Motals			Client samp	ling date / time	11-Jul-2024 14:10	11-Jul-2024 14:15	11-Jul-2024 14:20	
Total Metals	Analyte	CAS Number Method/Lab	LOR	Unit	YL2400890-006	YL2400890-007	YL2400890-008	
Arsenic, total					Result	Result	Result	
Beryllim, total	Total Metals							
Beyrllium, total	Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00034			
Bismuth, total	Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.00478			
Boron, total	Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100			
Cademium, total 7440-43-9 E420V/A 0.0000050 mg/L < 0.0000050	Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050			
Calcium, total 7440-70-2 [420/VA 0.050 mg/L 12.6 mg/L	Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010			
Cesium, total	Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.0000050			
Chromium, total	Calcium, total	7440-70-2 E420/VA	0.050	mg/L	12.6			
Cobalt, total 7440-48-4 E420/VA 620/VA 0.00010 mg/L <0.00010	Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010			
Copper, total 7440-50-8	Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050			
Iron, total	Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	<0.00010			
Lead, total 7439-92-1 E420/VA 0.000050 mg/L <0.000050	Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00057			
Lithium, total 7439-93-2 E420/VA 0.0010 mg/L 0.0021 Magnesium, total 7439-95-4 E420/VA 0.0050 mg/L 0.00362 Mercury, total 7439-97-6 E508/VA 0.000050 mg/L <0.000050	Iron, total	7439-89-6 E420/VA	0.010	mg/L	0.024			
Magnesium, total 7439-95-4 E420/VA 0.0050 mg/L 3.13 Manganese, total 7439-96-5 E420/VA 0.00010 mg/L 0.00362 Mercury, total 7439-97-6 E508/VA 0.000050 mg/L <0.000050	Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050			
Manganese, total 7439-96-5 E420/VA 0.00010 mg/L 0.00362	Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0021			
Mercury, total 7439-97-6 E508/VA 0.000050 mg/L <0.000050	Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	3.13			
Molybdenum, total 7439-98-7 E420/VA 0.000050 mg/L 0.000092	Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.00362			
Nickel, total 7440-02-0 E420/VA 0.00050 mg/L <0.00050	Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050			
Phosphorus, total 7723-14-0 E420/VA 0.050 mg/L <0.050	Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000092			
Potassium, total 7440-09-7 E420/VA 0.050 mg/L 1.68 -	Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	<0.00050			
Rubidium, total 7440-17-7 E420/VA 0.00020 mg/L 0.00219 <	Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050			
Selenium, total 7782-49-2 E420/VA 0.000050 mg/L <0.000050	Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.68			
Silicon, total 7440-21-3 E420/VA 0.10 mg/L 0.17 <	Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00219			
Silver, total 7440-22-4 E420/VA 0.000010 mg/L <0.000010	Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050			
Sodium, total 7440-23-5 E420/VA 0.050 mg/L 2.45 <	Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.17			
Strontium, total 7440-24-6 E420/VA 0.00020 mg/L 0.0472	Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010			
Sulfur, total 7704-34-9 E420/VA 0.50 mg/L 2.48	Sodium, total	7440-23-5 E420/VA	0.050	mg/L	2.45			
Sulfur, total 7704-34-9 E420/VA 0.50 mg/L 2.48	Strontium, total		0.00020	mg/L	0.0472			
	Sulfur, total		0.50	mg/L	2.48			
	Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020			
	Thallium, total		0.000010	mg/L	<0.000010			
	Thorium, total	· · · · · · · · · · · · · · · · · · ·	0.00010		<0.00010			

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Page Work Order YL2400890 Amendment 2 Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Client

Project



Sub-Matrix: Water			Cl	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					2-016	2-023	2-022	
			Client samp	ling date / time	11-Jul-2024 14:10	11-Jul-2024 14:15	11-Jul-2024 14:20	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400890-006	YL2400890-007	YL2400890-008	
					Result	Result	Result	
Total Metals								
Tin, total	7440-31-5	E420/VA	0.00010	mg/L	<0.00010			
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L	0.00082			
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	<0.00010			
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000104			
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	<0.00050			
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030			
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020			
Dissolved Metals								
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	12.2			
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	3.24			
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	1.54			
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	2.50			
Dissolved metals filtration location		EP421/VA	-	-	Field			
Volatile Organic Compounds [Fuels]								
Benzene	71-43-2	E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4	E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Toluene	108-88-3	E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Xylene, m+p-	179601-23-1	E611A/VA	0.40	μg/L	<0.40	<0.40	<0.40	
Xylene, o-	95-47-6	E611A/VA	0.30	μg/L	<0.30	<0.30	<0.30	
Xylenes, total	1330-20-7	E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Hydrocarbons								
F1 (C6-C10)		E581.VH+F1/	100	μg/L	<100	<100	<100	
		VA						
F2 (C10-C16)		E601/VA	300	μg/L	<300	<300	<300	
F3 (C16-C34)		E601/VA	300	μg/L	<300	<300	<300	
F4 (C34-C50)		E601/VA	300	μg/L 	<300	<300	<300	
F1-BTEX		EC580/VA	100	μg/L	<100	<100	<100	
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6		1.0	%	87.5	85.7	90.0	
Dichlorotoluene, 3,4-		E581.VH+F1/ VA	1.0	%	113	108	107	

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Work Order : YL2400890 Amendment 2
Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					2-016	2-023	2-022	
			Client samp	ling date / time	11-Jul-2024 14:10	11-Jul-2024 14:15	11-Jul-2024 14:20	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400890-006	YL2400890-007	YL2400890-008	
					Result	Result	Result	
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4	E611A/VA	1.0	%	72.8	71.9	86.5	
Difluorobenzene, 1,4-	540-36-3	E611A/VA	1.0	%	96.3	94.1	95.1	

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : **YL2400890** Page : 1 of 22

Amendment :2

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

: 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 2P4 Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 : 1 867 445 7143

 Project
 : Gordon Lake - Phase 1 LTMP - Water
 Date Samples Received
 : 12-Jul-2024 11:40

PO : ---- Issue Date : 15-Aug-2024 11:52

Sampler : Tarek Ghadieh

Sampler : Tarek Griadien

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received :8
No. of samples analysed :8

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

Address

C-O-C number

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

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

<u>No</u> Quality Control Sample Frequency Outliers occur.

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Matrix: Water

Work Order : YL2400890 Amendment 2
Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

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: **ator						aldation. • =	riolaling time exec	cuarioc,	- vvicinii	riolaling i
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	eparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
nions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00002-020	E298	11-Jul-2024	17-Jul-2024	28	5 days	✓	18-Jul-2024	28 days	7 days	✓
				days						
nions and Nutrients : Ammonia by Fluorescence				ļ						
Amber glass total (sulfuric acid)										
GLG-2024-00002-014	E298	11-Jul-2024	17-Jul-2024	28	6 days	✓	18-Jul-2024	28 days	7 days	✓
				days						
nions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)						,				
GLG-2024-00002-015	E298	11-Jul-2024	17-Jul-2024	28	6 days	✓	18-Jul-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)						,				
GLG-2024-00002-016	E298	11-Jul-2024	17-Jul-2024	28	6 days	✓	18-Jul-2024	28 days	7 days	✓
				days						
nions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)	5000	44 1 1 0004				,				
GLG-2024-00002-017	E298	11-Jul-2024	17-Jul-2024	28	6 days	✓	18-Jul-2024	28 days	/ days	✓
				days						
nions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)	F000	44 1/1 0004	47 101 0004		0.1	,	40 1-1-0064	00 1	0.1	
GLG-2024-00002-009	E298	11-Jul-2024	17-Jul-2024	28	6 days	✓	18-Jul-2024	28 days	8 days	✓
				days						
nions and Nutrients : Chloride in Water by IC										
HDPE	E00E 01	44 11 0004	40 1.1 0004		5.1	,	40 1-1 0004	00 1	5.1	,
GLG-2024-00002-009	E235.CI	11-Jul-2024	16-Jul-2024	28	5 days	✓	16-Jul-2024	28 days	5 days	\checkmark

days

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Work Order : YL2400890 Amendment 2
Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water	I	1			noluling time excer	g time exceedance ; ✓ = Within Holding Tin Analysis				
Analyte Group : Analytical Method	Method	Sampling Date		traction / Pr	•					
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-014	E235.CI	11-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-015	E235.Cl	11-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-016	E235.CI	11-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-017	E235.CI	11-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00002-020	E235.CI	11-Jul-2024	16-Jul-2024	28 days	5 days	√	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00002-009	E378-U	11-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	17-Jul-2024	3 days	5 days	x EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00002-014	E378-U	11-Jul-2024	16-Jul-2024	3 days	5 days	x EHT	17-Jul-2024	3 days	5 days	x EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00002-015	E378-U	11-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	17-Jul-2024	3 days	5 days	x EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00002-016	E378-U	11-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	17-Jul-2024	3 days	5 days	x EHT

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Gordon Lake - Phase 1 LTMP - Water Project



nalyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
IDPE										
GLG-2024-00002-017	E378-U	11-Jul-2024	16-Jul-2024	3 days	5 days	*	17-Jul-2024	3 days	5 days	*
						EHT				EHT
nions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
IDPE										
GLG-2024-00002-020	E378-U	11-Jul-2024	16-Jul-2024	3 days	5 days	*	17-Jul-2024	3 days	5 days	*
						EHT				EHT
nions and Nutrients : Nitrate in Water by IC (Low Level)										
IDPE	E005 NO0 I	44 1-1 0004	40 1.1.0004	0.1	5.4		40 1.1 0004	0.1	5 J	
GLG-2024-00002-009	E235.NO3-L	11-Jul-2024	16-Jul-2024	3 days	5 days	*	16-Jul-2024	3 days	5 days	*
						EHT				EH
nions and Nutrients : Nitrate in Water by IC (Low Level)										
IDPE	E225 NO2 I	44 11 2024	40 1.1.0004	0.1	5.4	×	40 1.1 0004	0.1	5 J	*
GLG-2024-00002-014	E235.NO3-L	11-Jul-2024	16-Jul-2024	3 days	5 days	EHT	16-Jul-2024	3 days	5 days	EH ⁻
						ЕПІ				ЕПІ
nions and Nutrients : Nitrate in Water by IC (Low Level)										
IDPE	E235.NO3-L	11-Jul-2024	16-Jul-2024	2 days	5 days	*	16-Jul-2024	2 days	5 days	×
GLG-2024-00002-015	E235.NO3-L	11-Jul-2024	10-Jul-2024	3 days	5 days	EHT	10-Jul-2024	3 days	5 days	EH1
						ЕПІ				ЕП
nions and Nutrients : Nitrate in Water by IC (Low Level)										
IDPE GLG-2024-00002-016	E235.NO3-L	11-Jul-2024	16-Jul-2024	3 days	5 days	×	16-Jul-2024	3 days	5 days	×
GLG-2024-00002-016	L233.NO3-L	11-Jul-2024	10-Jul-2024	3 uays	5 days	EHT	10-Jul-2024	3 uays	5 uays	EH1
						L111				L111
nions and Nutrients : Nitrate in Water by IC (Low Level)										
IDPE GLG-2024-00002-017	E235.NO3-L	11-Jul-2024	16-Jul-2024	3 days	5 days	×	16-Jul-2024	3 days	5 days	×
GLG-2024-00002-017	L233.NO3-L	11-Jul-2024	10-341-2024	3 days	Juays	EHT	10-341-2024	Juays	Juays	EH.
nions and Nutrients : Nitrate in Water by IC (Low Level)							I			
IDPE GLG-2024-00002-020	E235.NO3-L	11-Jul-2024	16-Jul-2024	3 days	5 days	×	16-Jul-2024	3 days	5 days	×
010-2021-00002-020		11-041-2024	10-041-2024	o days	Jacys	EHT	10-041-2024	Judys	Judys	EH1
and National Milette in Marca based on the D						L111				L11
nions and Nutrients : Nitrite in Water by IC (Low Level)										
	1	1		1			I		1	
GLG-2024-00002-009	E235.NO2-L	11-Jul-2024	16-Jul-2024	3 days	5 days	×	16-Jul-2024	3 days	5 days	×

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

Matrix: Water Analyte Group : Analytical Method	Method	Sampling Date	Fy	traction / Pr		raiuation. * -	Holding time exce	Analys		Tiolding Time
Container / Client Sample ID(s)	IVIELITOU	Sampling Date			g Times	Eval	Analysis Date		Times	Eval
Container / Crieft Cample 15(3)			Preparation Date	Rec	Actual	Eval	Analysis Date	Rec	Actual	⊏vai
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-014	E235.NO2-L	11-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-015	E235.NO2-L	11-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-016	E235.NO2-L	11-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-017	E235.NO2-L	11-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00002-020	E235.NO2-L	11-Jul-2024	16-Jul-2024	3 days	5 days	* EHT	16-Jul-2024	3 days	5 days	x EHT
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-009	E235.SO4	11-Jul-2024	16-Jul-2024	28 days	5 days	1	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-014	E235.SO4	11-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-015	E235.SO4	11-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00002-016	E235.SO4	11-Jul-2024	16-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	5 days	✓

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

Matrix: Water						/aluation. × –	Holding time exce			Holding Tilli
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00002-017	E235.SO4	11-Jul-2024	16-Jul-2024	28	5 days	✓	16-Jul-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00002-020	E235.SO4	11-Jul-2024	16-Jul-2024	28	5 days	✓	16-Jul-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00002-020	E372-U	11-Jul-2024	17-Jul-2024	28	5 days	✓	19-Jul-2024	28 days	8 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00002-014	E372-U	11-Jul-2024	17-Jul-2024	28	6 days	✓	19-Jul-2024	28 days	8 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00002-015	E372-U	11-Jul-2024	17-Jul-2024	28	6 days	✓	19-Jul-2024	28 days	8 days	✓
				days				-	-	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00002-016	E372-U	11-Jul-2024	17-Jul-2024	28	6 days	✓	19-Jul-2024	28 days	8 days	✓
				days				,	,	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)				,						
Amber glass total (sulfuric acid)				T						
GLG-2024-00002-017	E372-U	11-Jul-2024	17-Jul-2024	28	6 days	√	19-Jul-2024	28 days	8 davs	✓
323 232 1 00002 0 11		53, 252 /		days			.0 03, 202 /		2 22,0	•
Asiana and Nutricuta - Tatal Bloombanna ha Calannina (m. 10.000 ml.)				aayo						
Anions and Nutrients: Total Phosphorus by Colourimetry (0.002 mg/L)	I	1					I			
Amber glass total (sulfuric acid) GLG-2024-00002-009	E372-U	11-Jul-2024	17-Jul-2024	28	6 days	√	19-Jul-2024	28 days	9 daye	1
GLG-2024-00002-009	L372-0	11-541-2024	17-3ul-2024		0 days	Ť	19-541-2024	20 days	3 days	•
				days						
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)	E421	11-Jul-2024	40 1 0004	4.5.5	7 d	√	40 161 0004	165	0 4	✓
GLG-2024-00002-009	E421	1 1-Jul-2024	18-Jul-2024	180	7 days	*	19-Jul-2024	180	8 days	•
				days				days		

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

Matrix: Water						raidation. • -	Holding time exce			riolaling riini
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	eparation			Analys	sis	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00002-014	E421	11-Jul-2024	18-Jul-2024	180	7 days	✓	19-Jul-2024	180	8 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00002-015	E421	11-Jul-2024	18-Jul-2024	180	7 days	✓	19-Jul-2024	180	8 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00002-016	E421	11-Jul-2024	18-Jul-2024	180	7 days	✓	19-Jul-2024	180	8 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00002-017	E421	11-Jul-2024	18-Jul-2024	180	7 days	✓	19-Jul-2024	180	8 days	✓
				days				days	,	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS				,				,		
HDPE - dissolved (lab preserved)										
GLG-2024-00002-020	E421	11-Jul-2024	18-Jul-2024	180	7 days	✓	19-Jul-2024	180	8 days	1
010 1011 00001 010				days	, -			days	J, -	
Understanding COMERUOS ES EA has CO EID				aayo						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate)							I			
GLG-2024-00002-009	E601	11-Jul-2024	18-Jul-2024	14	7 davs	√	18-Jul-2024	40 days	0 days	1
GLG-2024-00002-009	2001	11 041 2021	10-041-202-	days	/ days		10-041-202-	40 days	o days	·
				uays						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)	E601	11-Jul-2024	18-Jul-2024		7 days	√	18-Jul-2024	40 days	0 days	1
GLG-2024-00002-014	E001	11-Jui-2024	10-Jul-2024	14	7 days	•	10-Jul-2024	40 days	o days	•
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)	5004	44 1 1 000 1	10 1 1 000 1				40 1 1 005 1	40.1		
GLG-2024-00002-015	E601	11-Jul-2024	18-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	0 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-016	E601	11-Jul-2024	18-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	0 days	✓
				days						

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

Matrix: Water						/aluation. ^ –	Holding time exce	euance , •	- vvitiiii	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-017	E601	11-Jul-2024	18-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	0 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-020	E601	11-Jul-2024	18-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	0 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-022	E601	11-Jul-2024	18-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	0 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00002-023	E601	11-Jul-2024	18-Jul-2024	14	7 days	✓	18-Jul-2024	40 days	0 days	✓
				days						
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00002-009	E581.VH+F1	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 days	✓
				days						
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00002-014	E581.VH+F1	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 days	1
				days				_	•	
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00002-015	E581.VH+F1	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 days	✓
				days					. ,	
Hydrocarbons : VH and F1 by Headspace GC-FID				,3						
Glass vial (sodium bisulfate)										
GLG-2024-00002-016	E581.VH+F1	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 davs	1
323 232 3332 313		55 252 1		days	3 44,0	·			3 44,0	,
Hudragerhans (VIII) and E4 by Handanase CC EID				days						
Hydrocarbons : VH and F1 by Headspace GC-FID Glass vial (sodium bisulfate)										
GLG-2024-00002-017	E581.VH+F1	11-Jul-2024	17-Jul-2024	14	6 days	√	17-Jul-2024	14 days	6 days	✓
GLG-2024-00002-017	L301.V1111	11-541-2024	17-Jui-2024		o uays	•	17-Jui-2024	14 uays	o uays	*
				days						

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Matrix: Water					Ev	/aluation: ≭ =	Holding time excee	edance ; •	/ = Within	Holding Tin
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	7 Times Actual	Eval
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-020	E581.VH+F1	11-Jul-2024	17-Jul-2024	14 days	6 days	1	17-Jul-2024	14 days	6 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-022	E581.VH+F1	11-Jul-2024	17-Jul-2024	14 days	6 days	✓	17-Jul-2024	14 days	6 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) GLG-2024-00002-023	E581.VH+F1	11-Jul-2024	17-Jul-2024	14 days	6 days	✓	17-Jul-2024	14 days	6 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-020	E355-L	11-Jul-2024	17-Jul-2024	28 days	5 days	✓	17-Jul-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-009	E355-L	11-Jul-2024	17-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion	on (Low Level)]	
Amber glass total (sulfuric acid) GLG-2024-00002-014	E355-L	11-Jul-2024	17-Jul-2024	28 days	6 days	1	17-Jul-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustio	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-015	E355-L	11-Jul-2024	17-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-016	E355-L	11-Jul-2024	17-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-017	E355-L	11-Jul-2024	17-Jul-2024	28 days	6 days	1	17-Jul-2024	28 days	6 days	✓

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

Physical Tests : Alkalinity Species by Titration	Matrix: Water						aluation. • -	Holding time excee	suarioc ,	- vvicinii	riolaling rilling
Physical Tests : Alkalinity Species by Titration	Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation			Analys	sis	
Physical Tests : Alkalinity Species by Titration E290 11-Jul-2024 16-Jul-2024 14 5 days 4 17-Jul-2024 14 days 6 days 4 4 4 4 days 6 days	Container / Client Sample ID(s)			Preparation	Holdin		Eval	Analysis Date	Holding	g Times	Eval
HOPE GLG-2024-00002-009 E290 11-Jul-2024 16-Jul-2024 14 5 days ✓ 17-Jul-2024 14 days 6 days ✓ May				Date	Rec	Actual			Rec	Actual	
Care	Physical Tests : Alkalinity Species by Titration										
Physical Tests	HDPE										
Physical Tests : Alkalinity Species by Titration	GLG-2024-00002-009	E290	11-Jul-2024	16-Jul-2024	14	5 days	✓	17-Jul-2024	14 days	6 days	✓
HDPE GLG-2024-00002-014 E290 11-Jul-2024 16-Jul-2024 14 5 days ✓ 17-Jul-2024 14 days 6 days ✓ ✓ May Ma					days						
Figure F	Physical Tests : Alkalinity Species by Titration										
Physical Tests : Alkalinity Species by Titration											
Physical Tests : Alkalinity Species by Titration	GLG-2024-00002-014	E290	11-Jul-2024	16-Jul-2024	14	5 days	✓	17-Jul-2024	14 days	6 days	✓
HDPE Class Class					days						
HDPE Class Class	Physical Tests : Alkalinity Species by Titration										
Physical Tests : Alkalinity Species by Titration											
Physical Tests : Alkalinity Species by Titration E290 11-Jul-2024 16-Jul-2024 14 days 5 days ✓ 17-Jul-2024 14 days 6 days ✓ 17-Jul-202	GLG-2024-00002-015	E290	11-Jul-2024	16-Jul-2024	14	5 days	✓	17-Jul-2024	14 days	6 days	✓
HDPE GLG-2024-00002-016 E290 11-Jul-2024 14 days 5 days ✓ 17-Jul-2024 14 days 6 days ✓ May					days						
E290 11-Jul-2024 16-Jul-2024 14 days 5 days ✓ 17-Jul-2024 14 days 6 days ✓ 17-Jul-2024 14 days 14 days 0 days ✓ 17-Jul-2024 14 days 0 days ✓ 17-Jul-2024 1	Physical Tests : Alkalinity Species by Titration										
Physical Tests : Alkalinity Species by Titration	HDPE										
Physical Tests : Alkalinity Species by Titration	GLG-2024-00002-016	E290	11-Jul-2024	16-Jul-2024	14	5 days	✓	17-Jul-2024	14 days	6 days	✓
HDPE GLG-2024-00002-017 E290 11-Jul-2024 16-Jul-2024 14 days 5 days ✓ 17-Jul-2024 14 days 6 days ✓ March M					days						
E290 11-Jul-2024 16-Jul-2024 14 days 5 days ✓ 17-Jul-2024 14 days 6 days ✓	Physical Tests : Alkalinity Species by Titration										
Physical Tests : Alkalinity Species by Titration	HDPE										
Physical Tests : Alkalinity Species by Titration	GLG-2024-00002-017	E290	11-Jul-2024	16-Jul-2024	14	5 days	✓	17-Jul-2024	14 days	6 days	✓
HDPE GLG-2024-00002-020 E290 11-Jul-2024 16-Jul-2024 14 days 5 days ✓ 17-Jul-2024 14 days 6 days ✓ Physical Tests : Conductivity in Water GLG-2024-00002-009 E100 11-Jul-2024 16-Jul-2024 28 days 5 days ✓ 17-Jul-2024 28 days 6 days ✓ Physical Tests : Conductivity in Water Calcalate the property of					days						
HDPE GLG-2024-00002-020 E290 11-Jul-2024 16-Jul-2024 14 days 5 days ✓ 17-Jul-2024 14 days 6 days ✓ Physical Tests : Conductivity in Water GLG-2024-00002-009 E100 11-Jul-2024 16-Jul-2024 28 days 5 days ✓ 17-Jul-2024 28 days 6 days ✓ Physical Tests : Conductivity in Water Calcalate the property of	Physical Tests : Alkalinity Species by Titration										
Physical Tests : Conductivity in Water HDPE GLG-2024-00002-014 E100 11-Jul-2024 16-Jul-2024 28 5 days ✓ 17-Jul-2024 28 days 6 days ✓											
Physical Tests : Conductivity in Water HDPE GLG-2024-00002-009 E100 11-Jul-2024 16-Jul-2024 28	GLG-2024-00002-020	E290	11-Jul-2024	16-Jul-2024	14	5 days	✓	17-Jul-2024	14 days	6 days	✓
HDPE GLG-2024-00002-009 E100 11-Jul-2024 16-Jul-2024 28 days 5 days ✓ 17-Jul-2024 28 days 6 days ✓ Physical Tests : Conductivity in Water HDPE GLG-2024-00002-014 E100 11-Jul-2024 16-Jul-2024 28 5 days ✓ 17-Jul-2024 28 days 6 days ✓					days						
GLG-2024-00002-009 E100 11-Jul-2024 16-Jul-2024 28 days 5 days ✓ 17-Jul-2024 28 days 6 days ✓ Physical Tests : Conductivity in Water HDPE GLG-2024-00002-014 E100 11-Jul-2024 16-Jul-2024 28 days 5 days ✓ 17-Jul-2024 28 days 6 days ✓	Physical Tests : Conductivity in Water										
Physical Tests : Conductivity in Water HDPE GLG-2024-00002-014 E100 11-Jul-2024 E100 11-Jul-2024 E100 11-Jul-2024 E100 11-Jul-2024 E100 E	HDPE										
Physical Tests : Conductivity in Water HDPE GLG-2024-00002-014 E100 11-Jul-2024 16-Jul-2024 28 5 days ✓ 17-Jul-2024 28 days 6 days ✓	GLG-2024-00002-009	E100	11-Jul-2024	16-Jul-2024	28	5 days	✓	17-Jul-2024	28 days	6 days	✓
HDPE E100 11-Jul-2024 16-Jul-2024 28 5 days ✓ 17-Jul-2024 28 days 6 days ✓					days						
HDPE E100 11-Jul-2024 16-Jul-2024 28 5 days ✓ 17-Jul-2024 28 days 6 days ✓	Physical Tests : Conductivity in Water										
	· · · · · · · · · · · · · · · · · · ·										
davs	GLG-2024-00002-014	E100	11-Jul-2024	16-Jul-2024	28	5 days	✓	17-Jul-2024	28 days	6 days	✓
					days						
Physical Tests : Conductivity in Water	Physical Tests : Conductivity in Water										
HDPE											
GLG-2024-00002-015 E100 11-Jul-2024 16-Jul-2024 28 5 days ✓ 17-Jul-2024 28 days 6 days ✓		E100	11-Jul-2024	16-Jul-2024	28	5 days	✓	17-Jul-2024	28 days	6 days	✓
days									1		

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Matrix: Water Analyte Group : Analytical Method	Method	Sampling Date	Ev	traction / Pi		raidation. W =	Holding time exce	Analys		Tiolaing Time
Container / Client Sample ID(s)	Method	Sampling Date			g Times	Eval	Analysis Date		g Times	Eval
Container / Crieft Cample 15(3)			Preparation Date	Rec	Actual	Eval	Allalysis Date	Rec	Actual	Evai
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00002-016	E100	11-Jul-2024	16-Jul-2024	28 days	5 days	√	17-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00002-017	E100	11-Jul-2024	16-Jul-2024	28 days	5 days	√	17-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00002-020	E100	11-Jul-2024	16-Jul-2024	28 days	5 days	1	17-Jul-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-020	E108	11-Jul-2024	16-Jul-2024	0.25 hrs	123 hrs	* EHTR-FM	17-Jul-2024	0.25 hrs	139 hrs	* EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-015	E108	11-Jul-2024	16-Jul-2024	0.25 hrs	125 hrs	# EHTR-FM	17-Jul-2024	0.25 hrs	140 hrs	x EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-017	E108	11-Jul-2024	16-Jul-2024	0.25 hrs	125 hrs	* EHTR-FM	17-Jul-2024	0.25 hrs	141 hrs	* EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-014	E108	11-Jul-2024	16-Jul-2024	0.25 hrs	126 hrs	≭ EHTR-FM	17-Jul-2024	0.25 hrs	141 hrs	* EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-016	E108	11-Jul-2024	16-Jul-2024	0.25 hrs	127 hrs	* EHTR-FM	17-Jul-2024	0.25 hrs	139 hrs	* EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00002-009	E108	11-Jul-2024	16-Jul-2024	0.25 hrs	128 hrs	* EHTR-FM	17-Jul-2024	0.25 hrs	144 hrs	* EHTR-FM

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

Matrix: Water	1	0 " 0 "	F. 4	anation / De		/aiuation	Holding time excee			Holding Time
Analyte Group : Analytical Method	Method	Sampling Date		raction / Pr				Analys		
Container / Client Sample ID(s)			Preparation	<u> </u>	Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry (Low Level)					ı					
HDPE	_,_,									,
GLG-2024-00002-009	E162-L	11-Jul-2024					18-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE	E400.1	44 1 1 0004					40 1 1 000 4		- .	,
GLG-2024-00002-014	E162-L	11-Jul-2024					18-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GLG-2024-00002-015	E162-L	11-Jul-2024					18-Jul-2024	7 days	7 days	✓
GLG-2024-00002-015	E102-L	11-Jui-2024					10-Jul-2024	7 uays	1 uays	•
Physical Tests : TDS by Gravimetry (Low Level)				I	l l					
HDPE GLG-2024-00002-016	E162-L	11-Jul-2024					18-Jul-2024	7 days	7 days	✓
GLG-2024-00002-010	L102-L	11-3ui-2024					10-341-2024	1 days	1 days	•
Physical Tasks - TDO by Considerator (Land Land)										
Physical Tests : TDS by Gravimetry (Low Level) HDPE										
GLG-2024-00002-017	E162-L	11-Jul-2024					18-Jul-2024	7 days	7 days	1
									,	
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00002-020	E162-L	11-Jul-2024					18-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00002-009	E160-L	11-Jul-2024					19-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00002-014	E160-L	11-Jul-2024					19-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00002-015	E160-L	11-Jul-2024					19-Jul-2024	7 days	7 days	✓

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nalyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation Date	Holdin Rec	g Times Actual	Eval	Analysis Date	Holding Rec	g Times Actual	Eval
hysical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GLG-2024-00002-016	E160-L	11-Jul-2024					19-Jul-2024	7 days	7 days	✓
hysical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GLG-2024-00002-017	E160-L	11-Jul-2024					19-Jul-2024	7 days	7 days	✓
hysical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GLG-2024-00002-020	E160-L	11-Jul-2024					19-Jul-2024	7 days	7 days	✓
otal Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-016	E508	11-Jul-2024	17-Jul-2024	0 hrs	147 hrs	* UCP	17-Jul-2024	0 hrs	147 hrs	* UCF
otal Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-020	E508	11-Jul-2024	17-Jul-2024	0 hrs	147 hrs	* UCP	17-Jul-2024	0 hrs	147 hrs	# UCP
otal Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-015	E508	11-Jul-2024	17-Jul-2024	0 hrs	148 hrs	* UCP	17-Jul-2024	0 hrs	148 hrs	# UCP
otal Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-017	E508	11-Jul-2024	17-Jul-2024	0 hrs	148 hrs	* UCP	17-Jul-2024	0 hrs	148 hrs	x UCP
otal Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-014	E508	11-Jul-2024	17-Jul-2024	0 hrs	149 hrs	* UCP	17-Jul-2024	0 hrs	149 hrs	# UCP
otal Metals : Total Mercury in Water by CVAAS										
HDPE GLG-2024-00002-009	E508	11-Jul-2024	17-Jul-2024	0 hrs	152 hrs	* UCP	17-Jul-2024	0 hrs	152 hrs	x UCP

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

Date Rec Actual Rec	8 days 8 days	Eval
Total Metals : Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-009 E420 11-Jul-2024 18-Jul-2024 18	8 days 8 days	✓
Date Rec Actual Rec	8 days 8 days	✓
HDPE - total (lab preserved) GLG-2024-00002-009 E420 11-Jul-2024 18-Jul-2024 1	8 days	✓
E420 11-Jul-2024 18-Jul-2024 18-Jul	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-014 E420 11-Jul-2024 18-Jul-2024 180 days Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-015 E420 11-Jul-2024 18-Jul-2024 18-Jul-2024 180 T days T day	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-014 E420 11-Jul-2024 18-Jul-2024 180 days Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-015 E420 11-Jul-2024 18-Jul-2024 18-Ju	8 days	
HDPE - total (lab preserved) GLG-2024-00002-014 E420 11-Jul-2024 18-Jul-2024 180 7 days ✓ 19-Jul-2024 180 days Total Metals : Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-015 E420 11-Jul-2024 18-Jul-2024 180 7 days ✓ 19-Jul-2024 180 Total Metals : Total Metals in Water by CRC ICPMS	8 days	
HDPE - total (lab preserved) GLG-2024-00002-014 E420 11-Jul-2024 18-Jul-2024 180 7 days ✓ 19-Jul-2024 180 days Total Metals : Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-015 E420 11-Jul-2024 18-Jul-2024 180 7 days ✓ 19-Jul-2024 180 days Total Metals : Total Metals in Water by CRC ICPMS	8 days	
Total Metals : Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-015 E420 11-Jul-2024 18-Jul-2024 18-Jul-2024 180 days Total Metals in Water by CRC ICPMS	8 days	
Total Metals : Total Metals in Water by CRC ICPMS HDPE - total (lab preserved) GLG-2024-00002-015 E420 11-Jul-2024 18-Jul-2024 180 days Total Metals : Total Metals in Water by CRC ICPMS	8 days	✓
HDPE - total (lab preserved) E420 11-Jul-2024 18-Jul-2024 180 days 7 days days ✓ 19-Jul-2024 180 days Total Metals : Total Metals in Water by CRC ICPMS	1 1	✓
HDPE - total (lab preserved) E420 11-Jul-2024 18-Jul-2024 180 days 7 days days ✓ 19-Jul-2024 180 days Total Metals : Total Metals in Water by CRC ICPMS	1 1	✓
Total Metals : Total Metals in Water by CRC ICPMS	1 1	✓
Total Metals : Total Metals in Water by CRC ICPMS		
HDPE - total (lab preserved)	\top	
GLG-2024-00002-016 E420 11-Jul-2024 18-Jul-2024 180 7 days ✓ 19-Jul-2024 180	8 days	✓
days		
Total Metals : Total Metals in Water by CRC ICPMS		
HDPE - total (lab preserved)		
GLG-2024-00002-017 E420 11-Jul-2024 18-Jul-2024 180 7 days ✓ 19-Jul-2024 180	8 days	✓
days		
Total Metals : Total Metals in Water by CRC ICPMS		
HDPE - total (lab preserved)	$\overline{}$	
GLG-2024-00002-020 E420 11-Jul-2024 18-Jul-2024 180 7 days ✓ 19-Jul-2024 180	8 days	✓
days		
Volatile Organic Compounds : BTEX by Headspace GC-MS		
Glass vial (sodium bisulfate)	$\overline{}$	
GLG-2024-00002-009 E611A 11-Jul-2024 17-Jul-2024 14 6 days ✓ 17-Jul-2024 14 days	s 6 days	✓
days		
Volatile Organic Compounds : BTEX by Headspace GC-MS		
Glass vial (sodium bisulfate)		
GLG-2024-00002-014 E611A 11-Jul-2024 17-Jul-2024 14 6 days ✓ 17-Jul-2024 14 days	s 6 days	✓
days		
Volatile Organic Compounds : BTEX by Headspace GC-MS		
Glass vial (sodium bisulfate)		
	s 6 days	✓
days		

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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	reparation					
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-016	E611A	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-017	E611A	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)						,				
GLG-2024-00002-020	E611A	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)						,				,
GLG-2024-00002-022	E611A	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00002-023	E611A	11-Jul-2024	17-Jul-2024	14	6 days	✓	17-Jul-2024	14 days	6 days	✓
				days						

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).

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

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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		Evaluat	ion: × = QC frequ	ency outside sp	ecification; ✓ = 0	QC frequency wit	thin specificatio
Quality Control Sample Type			Frequency (%))			
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1548077	2	23	8.7	5.0	✓
Ammonia by Fluorescence	E298	1548476	1	8	12.5	5.0	✓
BTEX by Headspace GC-MS	E611A	1549011	1	8	12.5	5.0	√
Chloride in Water by IC	E235.CI	1548080	2	16	12.5	5.0	√
Conductivity in Water	E100	1548078	2	26	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1550713	1	20	5.0	5.0	√
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1548087	2	23	8.7	5.0	√
Nitrate in Water by IC (Low Level)	E235.NO3-L	1548082	2	23	8.7	5.0	√
Nitrite in Water by IC (Low Level)	E235.NO2-L	1548083	2	23	8.7	5.0	√
pH by Meter	E108	1548076	2	40	5.0	5.0	√
Sulfate in Water by IC	E235.SO4	1548084	2	23	8.7	5.0	√
TDS by Gravimetry (Low Level)	E162-L	1552916	1	11	9.0	5.0	√
Total Mercury in Water by CVAAS	E508	1550476	1	20	5.0	5.0	√
Total Metals in Water by CRC ICPMS	E420	1550641	1	20	5.0	5.0	√
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1548474	1	8	12.5	5.0	<u>√</u>
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1548471	1	17	5.8	5.0	√
VH and F1 by Headspace GC-FID	E581.VH+F1	1549008	1	20	5.0	5.0	<u>√</u>
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1548077	2	23	8.7	5.0	1
Ammonia by Fluorescence	E298	1548476	1	8	12.5	5.0	<u> </u>
BTEX by Headspace GC-MS	E611A	1549011	1	8	12.5	5.0	<u> </u>
CCME PHCs - F2-F4 by GC-FID	E601	1550702	1	8	12.5	5.0	<u>√</u>
Chloride in Water by IC	E235.CI	1548080	2	16	12.5	5.0	<u> </u>
Conductivity in Water	E100	1548078	2	26	7.6	5.0	<u> </u>
Dissolved Metals in Water by CRC ICPMS	E421	1550713	1	20	5.0	5.0	<u>√</u>
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1548087	2	23	8.7	5.0	<u>√</u>
Nitrate in Water by IC (Low Level)	E235.NO3-L	1548082	2	23	8.7	5.0	<u>√</u>
Nitrite in Water by IC (Low Level)	E235.NO2-L	1548083	2	23	8.7	5.0	<u>√</u>
pH by Meter	E108	1548076	2	40	5.0	5.0	<u>√</u>
Sulfate in Water by IC	E235.SO4	1548084	2	23	8.7	5.0	√
TDS by Gravimetry (Low Level)	E162-L	1552916	1	11	9.0	5.0	√
Total Mercury in Water by CVAAS	E508	1550476	1	20	5.0	5.0	<u>√</u>
Total Metals in Water by CRC ICPMS	E420	1550641	1	20	5.0	5.0	<u> </u>
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1548474	1	8	12.5	5.0	<u> </u>
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1548471	1	17	5.8	5.0	√
TSS by Gravimetry (Low Level)	E160-L	1552913	1	15	6.6	5.0	

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Matrix: Water		Evaluat	ion: × = QC freque	ency outside sp	ecification; ✓ = 0	QC frequency wit	hin specification
Quality Control Sample Type			Co	unt		Frequency (%)	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Control Samples (LCS) - Continued							
VH and F1 by Headspace GC-FID	E581.VH+F1	1549008	1	20	5.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1548077	2	23	8.7	5.0	✓
Ammonia by Fluorescence	E298	1548476	1	8	12.5	5.0	✓
BTEX by Headspace GC-MS	E611A	1549011	1	8	12.5	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1550702	1	8	12.5	5.0	✓
Chloride in Water by IC	E235.Cl	1548080	2	16	12.5	5.0	✓
Conductivity in Water	E100	1548078	2	26	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1550713	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1548087	2	23	8.7	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1548082	2	23	8.7	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1548083	2	23	8.7	5.0	✓
Sulfate in Water by IC	E235.SO4	1548084	2	23	8.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1552916	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1550476	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1550641	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1548474	1	8	12.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1548471	1	17	5.8	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1552913	1	15	6.6	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1549008	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1548476	1	8	12.5	5.0	✓
BTEX by Headspace GC-MS	E611A	1549011	1	8	12.5	5.0	✓
Chloride in Water by IC	E235.Cl	1548080	2	16	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1550713	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1548087	2	23	8.7	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1548082	2	23	8.7	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1548083	2	23	8.7	5.0	✓
Sulfate in Water by IC	E235.SO4	1548084	2	23	8.7	5.0	✓
Total Mercury in Water by CVAAS	E508	1550476	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1550641	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1548474	1	8	12.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1548471	1	17	5.8	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1549008	1	20	5.0	5.0	√

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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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Vancouver			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Vancouver			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Vancouver			brackish waters) may produce a positive bias by this method. Alternate analysis
				methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			
Chloride in Water by IC	E235.CI	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Sulfate in Water by IC	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Alkalinity Species by Titration	E290	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Vancouver			

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Client : Stantec Consulting Ltd.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
VH and F1 by Headspace GC-FID	E581.VH+F1 ALS Environmental - Vancouver	Water	BC MOE Lab Manual / CCME PHC in Soil - Tier 1 (mod)	Volatile Hydrocarbons (VH and F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless
				qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.

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Client : Stantec Consulting Ltd.
Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
	ALS Environmental - Vancouver		1	Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A ALS Environmental - Vancouver	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Vancouver	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Nitrite (as N) converted to Nitrite (as NO2)	EC235.NO2A ALS Environmental - Vancouver	Water	Calculation	Nitrite by IC measured as N is converted to the NO2 form by calculation.
Nitrate (as N) converted to Nitrate (as NO3)	EC235.NO3A ALS Environmental - Vancouver	Water	Calculation	Nitrate by IC measured as N is converted to the NO3 form by calculation.
F1-BTEX	EC580 ALS Environmental - Vancouver	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALS Environmental - Vancouver			

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Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Total Organic Carbon by	EP355	Water		Preparation for Total Organic Carbon by Combustion
Combustion				
	ALS Environmental -			
	Vancouver			
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental -			
	Vancouver			
Dissolved Metals Water Filtration	EP421	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental -			
	Vancouver			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the
				headspace autosampler. An aliquot of the headspace is then injected into the
	ALS Environmental -			GC/MS-FID system.
	Vancouver			, in the second
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are
				extracted using a hexane liquid-liquid extraction.
	ALS Environmental -			
	Vancouver			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order : YL2400890 Page : 1 of 17

Amendment : 2

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address :4910 53 Street Address :314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 :1 867 445 7143

 Project
 : Gordon Lake - Phase 1 LTMP - Water
 Date Samples Received
 :12-Jul-2024 11:

Date Samples Received : 12-Jul-2024 11:40
Date Analysis Commenced : 16-Jul-2024

Issue Date : 15-Aug-2024 11:52

C-O-C number :----

Sampler : Tarek Ghadieh

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received : 8
No. of samples analysed : 8

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

PO

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
Angelo Salandanan	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Janice Leung	Supervisor - Organics Instrumentation	Vancouver Organics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Inorganics, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia

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Client: Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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.

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Work Order: YL2400890 Amendment 2
Client: Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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											
FJ2402040-003	Anonymous	pH		E108	0.10	pH units	8.22	8.21	0.122%	4%	
Physical Tests (QC	Lot: 1548077)										
FJ2402040-003	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	90.2	90.0	0.224%	200%	
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, phenolphthalein (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	
		Alkalinity, total (as CaCO3)		E290	1.0	mg/L	90.2	90.0	0.224%	20%	
Physical Tests (QC	Lot: 1548078)										
FJ2402040-003	Anonymous	Conductivity		E100	2.0	μS/cm	178	178	0.113%	10%	
Physical Tests (QC	Lot: 1548291)										
FJ2402017-001	Anonymous	pН		E108	0.10	pH units	8.06	8.09	0.372%	4%	
Physical Tests (QC	Lot: 1548292)										
FJ2402017-001	Anonymous	Conductivity		E100	2.0	μS/cm	724	725	0.138%	10%	
Physical Tests (QC	Lot: 1548293)										
YL2400898-001	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	34.5	33.3	3.57%	200%	
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, phenolphthalein (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	
		Alkalinity, total (as CaCO3)		E290	1.0	mg/L	34.5	33.3	3.57%	20%	
Physical Tests (QC	Lot: 1552916)										
YL2400886-001	Anonymous	Solids, total dissolved [TDS]		E162-L	15.0	mg/L	227	193	16.2%	20%	
Anions and Nutrien	ts (QC Lot: 1548080)										
FJ2402040-001	Anonymous	Chloride	16887-00-6	E235.CI	0.50	mg/L	4.05	4.05	0.007	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548082)										
FJ2402040-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	
Anions and Nu <u>trien</u>	ts (QC Lot: 1548083)										
FJ2402040-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548084)										
FJ2402040-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	7.13	7.12	0.188%	20%	

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Client: Stantec Consulting Ltd.



Sub-Matrix: Water							Labora	tory Duplicate (D	UP) 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 Nutrien	ts (QC Lot: 1548087)										
FJ2402040-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548290)										
VA24B7156-006	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548294)										
VA24B7156-006	Anonymous	Chloride	16887-00-6	E235.CI	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548296)										
VA24B7156-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548297)										
VA24B7156-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548298)										
VA24B7156-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548471)										
VA24B6802-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0027	0.0028	0.0001	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1548476)										
VA24B7105-001	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: 15484)	74)									
VA24B7105-001	Anonymous	Carbon, total organic [TOC]		E355-L	0.50	mg/L	2.48	2.71	0.23	Diff <2x LOR	
Total Metals (QC Lo	ot: 1550476)										
VA24B6236-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
Total Metals (QC Lo	ot: 1550641)										
FJ2402029-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0060	mg/L	0.467	0.509	8.73%	20%	
		Antimony, total	=								
		Antimony, total	7440-36-0	E420	0.00020	mg/L	0.00384	0.00380	1.03%	20%	
		Arsenic, total	7440-36-0 7440-38-2	E420	0.00020 0.00020	mg/L mg/L	0.00384 0.00197	0.00380 0.00206	1.03% 4.36%	20% 20%	
						Ü					
		Arsenic, total	7440-38-2	E420	0.00020	mg/L	0.00197	0.00206	4.36%	20%	
		Arsenic, total Barium, total	7440-38-2 7440-39-3	E420 E420	0.00020 0.00020	mg/L mg/L	0.00197 0.133	0.00206 0.135	4.36% 1.37%	20% 20%	
		Arsenic, total Barium, total Beryllium, total	7440-38-2 7440-39-3 7440-41-7	E420 E420 E420	0.00020 0.00020 0.000100	mg/L mg/L mg/L	0.00197 0.133 <0.000100	0.00206 0.135 <0.000100	4.36% 1.37% 0	20% 20% Diff <2x LOR	
		Arsenic, total Barium, total Beryllium, total Bismuth, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9	E420 E420 E420 E420	0.00020 0.00020 0.000100 0.000100	mg/L mg/L mg/L mg/L	0.00197 0.133 <0.000100 <0.000100	0.00206 0.135 <0.000100 <0.000100	4.36% 1.37% 0 0	20% 20% Diff <2x LOR Diff <2x LOR	
		Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8	E420 E420 E420 E420 E420	0.00020 0.00020 0.000100 0.000100 0.020	mg/L mg/L mg/L mg/L mg/L	0.00197 0.133 <0.000100 <0.000100 0.396	0.00206 0.135 <0.000100 <0.000100 0.411	4.36% 1.37% 0 0 3.69%	20% 20% Diff <2x LOR Diff <2x LOR 20%	
		Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9	E420 E420 E420 E420 E420 E420	0.00020 0.00020 0.000100 0.000100 0.020 0.0000100	mg/L mg/L mg/L mg/L mg/L	0.00197 0.133 <0.000100 <0.000100 0.396 0.000180	0.00206 0.135 <0.000100 <0.000100 0.411 0.000164	4.36% 1.37% 0 0 3.69% 9.13%	20% 20% Diff <2x LOR Diff <2x LOR 20% 20%	
		Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2	E420 E420 E420 E420 E420 E420 E420	0.00020 0.00020 0.000100 0.000100 0.020 0.0000100 0.100	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00197 0.133 <0.000100 <0.000100 0.396 0.000180 26.4	0.00206 0.135 <0.000100 <0.000100 0.411 0.000164 26.3	4.36% 1.37% 0 0 3.69% 9.13% 0.495%	20% 20% Diff <2x LOR Diff <2x LOR 20% 20%	
		Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2	E420 E420 E420 E420 E420 E420 E420 E420	0.00020 0.00020 0.000100 0.000100 0.020 0.0000100 0.100 0.000020	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00197 0.133 <0.000100 <0.000100 0.396 0.000180 26.4 0.000521	0.00206 0.135 <0.000100 <0.000100 0.411 0.000164 26.3 0.000508	4.36% 1.37% 0 0 3.69% 9.13% 0.495% 2.52%	20% 20% Diff <2x LOR Diff <2x LOR 20% 20% 20% 20%	
		Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420 E420 E420 E420 E420	0.00020 0.00020 0.000100 0.000100 0.020 0.0000100 0.100 0.000020 0.00100	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00197 0.133 <0.000100 <0.000100 0.396 0.000180 26.4 0.000521 0.00121	0.00206 0.135 <0.000100 <0.000100 0.411 0.000164 26.3 0.000508 0.00130	4.36% 1.37% 0 0 3.69% 9.13% 0.495% 2.52% 0.00008	20% 20% Diff <2x LOR Diff <2x LOR 20% 20% 20% 20% Diff <2x LOR	

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Work Order: YL2400890 Amendment 2
Client: Stantec Consulting Ltd.



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 L	ot: 1550641) - continue	t e									
FJ2402029-001	Anonymous	Lead, total	7439-92-1	E420	0.000100	mg/L	0.00151	0.00156	3.03%	20%	
		Lithium, total	7439-93-2	E420	0.0020	mg/L	0.396	0.403	1.70%	20%	
		Magnesium, total	7439-95-4	E420	0.0100	mg/L	12.0	12.1	1.25%	20%	
		Manganese, total	7439-96-5	E420	0.00020	mg/L	0.0166	0.0165	0.977%	20%	
		Molybdenum, total	7439-98-7	E420	0.000100	mg/L	0.0190	0.0188	0.770%	20%	
		Nickel, total	7440-02-0	E420	0.00100	mg/L	0.0180	0.0181	0.189%	20%	
		Phosphorus, total	7723-14-0	E420	0.100	mg/L	<0.100	0.114	0.014	Diff <2x LOR	
		Potassium, total	7440-09-7	E420	0.100	mg/L	3.24	3.35	3.26%	20%	
		Rubidium, total	7440-17-7	E420	0.00040	mg/L	0.00779	0.00795	2.06%	20%	
		Selenium, total	7782-49-2	E420	0.000100	mg/L	0.00424	0.00431	1.52%	20%	
		Silicon, total	7440-21-3	E420	0.20	mg/L	3.26	3.30	1.31%	20%	
		Silver, total	7440-22-4	E420	0.000020	mg/L	0.000040	0.000043	0.000003	Diff <2x LOR	
		Sodium, total	7440-23-5	E420	0.100	mg/L	380	384	1.25%	20%	
		Strontium, total	7440-24-6	E420	0.00040	mg/L	0.0981	0.0974	0.680%	20%	
		Sulfur, total	7704-34-9	E420	1.00	mg/L	87.7	86.8	1.04%	20%	
		Tellurium, total	13494-80-9	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	
		Thallium, total	7440-28-0	E420	0.000020	mg/L	0.000067	0.000068	0.0000008	Diff <2x LOR	
		Thorium, total	7440-29-1	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	
		Tin, total	7440-31-5	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	
		Titanium, total	7440-32-6	E420	0.00060	mg/L	0.00193	0.00270	0.00077	Diff <2x LOR	
		Tungsten, total	7440-33-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	
		Uranium, total	7440-61-1	E420	0.000020	mg/L	0.00920	0.00938	2.00%	20%	
		Vanadium, total	7440-62-2	E420	0.00100	mg/L	0.00514	0.00538	0.00024	Diff <2x LOR	
		Zinc, total	7440-66-6	E420	0.0060	mg/L	0.0179	0.0165	0.0014	Diff <2x LOR	
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	
Dissolved Metals (QC Lot: 1550713)										
FJ2402027-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.100	mg/L	3.37	3.43	1.82%	20%	
		Magnesium, dissolved	7439-95-4	E421	0.0100	mg/L	1.30	1.32	1.44%	20%	
		Potassium, dissolved	7440-09-7	E421	0.100	mg/L	0.518	0.526	0.008	Diff <2x LOR	
		Sodium, dissolved	7440-23-5	E421	0.100	mg/L	307	316	2.76%	20%	
/olatile Organic Co	ompounds (QC Lot: 1549	9011)									
YL2400890-001	GLG-2024-00002-009	Benzene	71-43-2	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Toluene	108-88-3	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	

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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
Volatile Organic Co	Volatile Organic Compounds (QC Lot: 1549011) - continued										
YL2400890-001	GLG-2024-00002-009	Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	<0.40	<0.40	0	Diff <2x LOR	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	<0.30	<0.30	0	Diff <2x LOR	
Hydrocarbons (QC	Lot: 1549008)										
FJ2402027-001	Anonymous	F1 (C6-C10)		E581.VH+F1	100	μg/L	<100	<100	0.0%	30%	

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Project : Gordon Lake - Phase 1 LTMP - Water



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

nalyte	CAS Number Method	LOR	Unit	Result	Qualifier
nysical Tests (QCLot: 1548077)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
nysical Tests (QCLot: 1548078)					
Conductivity	E100	1	μS/cm	<1.0	
nysical Tests (QCLot: 1548292)					
Conductivity	E100	1	μS/cm	1.6	
nysical Tests (QCLot: 1548293)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
nysical Tests (QCLot: 1552913)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
nysical Tests (QCLot: 1552916)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
nions and Nutrients (QCLot: 1548080)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
nions and Nutrients (QCLot: 1548082)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
nions and Nutrients (QCLot: 1548083)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1548084)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
nions and Nutrients (QCLot: 1548087)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1548290)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	

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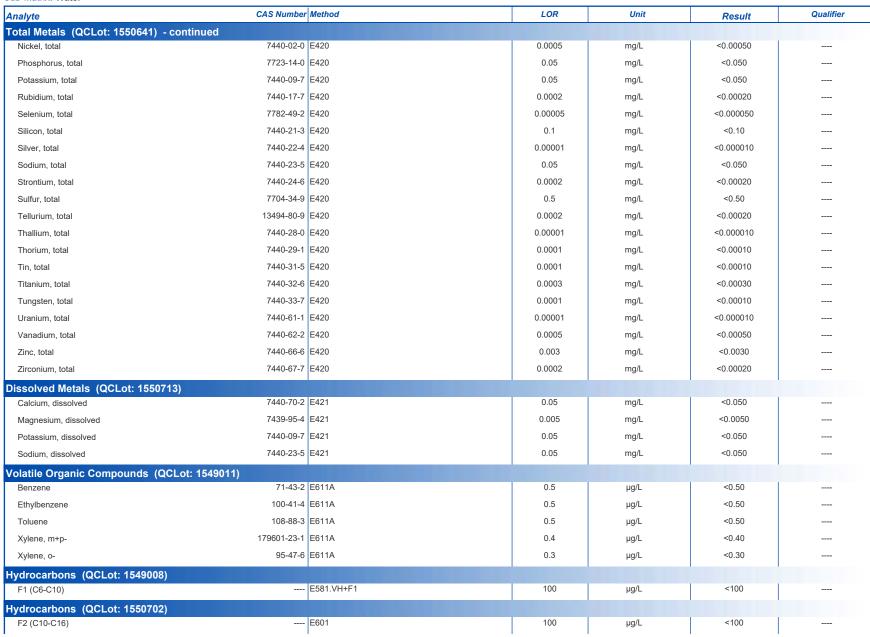




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Project : Gordon Lake - Phase 1 LTMP - Water

d

Sub-Matrix: Water

Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Hydrocarbons (QCLot: 1550702) - continued					
F3 (C16-C34)	E601	250	μg/L	<250	
F4 (C34-C50)	E601	250	μg/L	<250	

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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 Co	ontrol Sample (LCS)) Report	
				Spike	Recovery (%)	Recovery	y Limits (%)	
Analyte	CAS Number Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1548076)								
рН	E108		pH units	7 pH units	100	98.0	102	
Physical Tests (QCLot: 1548077)								
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	229 mg/L	87.4	75.0	125	
Alkalinity, total (as CaCO3)	E290	1	mg/L	500 mg/L	91.1	85.0	115	
Physical Tests (QCLot: 1548078)								
Conductivity	E100	1	μS/cm	147 μS/cm	98.8	90.0	110	
Physical Tests (QCLot: 1548291)								
pH	E108		pH units	7 pH units	99.8	98.0	102	
Physical Tests (QCLot: 1548292)								
Conductivity	E100	1	μS/cm	147 μS/cm	99.0	90.0	110	
Physical Tests (QCLot: 1548293)								
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	229 mg/L	86.5	75.0	125	
Alkalinity, total (as CaCO3)	E290	1	mg/L	500 mg/L	93.3	85.0	115	
Physical Tests (QCLot: 1552913)								
Solids, total suspended [TSS]	E160-L	1	mg/L	150 mg/L	92.3	85.0	115	
Physical Tests (QCLot: 1552916)								
Solids, total dissolved [TDS]	E162-L	3	mg/L	1000 mg/L	99.0	85.0	115	
Anions and Nutrients (QCLot: 1548080)								
Chloride	16887-00-6 E235.CI	0.5	mg/L	100 mg/L	99.3	90.0	110	
Anions and Nutrients (QCLot: 1548082)								
Nitrate (as N)	14797-55-8 E235.NO3	-L 0.005	mg/L	2.5 mg/L	98.8	90.0	110	
Anions and Nutrients (QCLot: 1548083)								
Nitrite (as N)	14797-65-0 E235.NO2	-L 0.001	mg/L	0.5 mg/L	99.9	90.0	110	
Anions and Nutrients (QCLot: 1548084)								
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	100 mg/L	99.6	90.0	110	
Anions and Nutrients (QCLot: 1548087)								1
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	0.03 mg/L	93.2	80.0	120	
Anions and Nutrients (QCLot: 1548290)								
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	0.03 mg/L	93.5	80.0	120	
Anions and Nutrients (QCLot: 1548294)								
Chloride	16887-00-6 E235.CI	0.5	mg/L	100 mg/L	100.0	90.0	110	

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Sub-Matrix: Water						Laboratory Co.	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1548296)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	
Anions and Nutrients (QCLot: 1548297)									'
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	
Anions and Nutrients (QCLot: 1548298)									'
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	
Anions and Nutrients (QCLot: 1548471)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	92.0	80.0	120	
Anions and Nutrients (QCLot: 1548476)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	105	85.0	115	
Organic / Inorganic Carbon (QCLot: 1548474	4)								
Carbon, total organic [TOC]		E355-L	0.5	mg/L	8.57 mg/L	95.8	80.0	120	
Total Metals (QCLot: 1550476)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	
Total Metals (QCLot: 1550641)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	105	80.0	120	
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	106	80.0	120	
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	105	80.0	120	
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	109	80.0	120	
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	103	80.0	120	
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	95.5	80.0	120	
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.7	80.0	120	
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	100	80.0	120	
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	
Copper, total	7440-50-8		0.0005	mg/L	0.25 mg/L	102	80.0	120	
ron, total	7439-89-6		0.01	mg/L	1 mg/L	98.5	80.0	120	
Lead, total	7439-92-1		0.00005	mg/L	0.5 mg/L	104	80.0	120	
_ithium, total	7439-93-2		0.001	mg/L	0.25 mg/L	100	80.0	120	
Magnesium, total	7439-95-4		0.005	mg/L	50 mg/L	103	80.0	120	
Manganese, total	7439-96-5		0.0001	mg/L	0.25 mg/L	102	80.0	120	
Molybdenum, total	7439-98-7		0.00005	mg/L	0.25 mg/L	103	80.0	120	
Nickel, total	7440-02-0		0.0005	mg/L	0.5 mg/L	100	80.0	120	
violoi, total	7 440-02-0	L-720	0.0003	mg/L	0.5 mg/L	100	00.0	120	

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Sub-Matrix: Water						Laboratory Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifie
Total Metals (QCLot: 1550641) - cont	inued								
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	112	80.0	120	
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	113	80.0	120	
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	96.0	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	95.7	80.0	120	
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	92.7	80.0	120	
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	95.6	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	97.5	80.0	120	
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.4	80.0	120	
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	105	80.0	120	
Fungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	
Jranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	101	80.0	120	
/anadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	103	80.0	120	
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.7	80.0	120	
Dissolved Metals (QCLot: 1550713)									
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	104	80.0	120	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	111	80.0	120	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	107	80.0	120	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	113	80.0	120	
/olatile Organic Compounds (QCLot	1549011)								
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	89.8	70.0	130	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	88.2	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	88.3	70.0	130	
Kylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	89.5	70.0	130	
Kylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	85.6	70.0	130	
Hydrocarbons (QCLot: 1549008)									
F1 (C6-C10)		E581.VH+F1	100	μg/L	6310 µg/L	77.5	70.0	130	

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Client: Stantec Consulting Ltd.



Sub-Matrix: Water			Laboratory Control Sample (LCS) Report							
					Spike	Recovery (%)	Recovery	Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier	
Hydrocarbons (QCLot: 1550702) - continue	d									
F2 (C10-C16)		E601	100	μg/L	3540 µg/L	96.3	70.0	130		
F3 (C16-C34)		E601	250	μg/L	7050 μg/L	91.4	70.0	130		
F4 (C34-C50)		E601	250	μg/L	5050 μg/L	99.0	70.0	130		

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Client: Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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		
					Spil	re	Recovery (%)	Recovery	Limits (%)	
Laboratory sample I	D Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutr	rients (QCLot: 1548080)								
FJ2402040-002	Anonymous	Chloride	16887-00-6	E235.CI	102 mg/L	100 mg/L	102	75.0	125	
Anions and Nutr	rients (QCLot: 1548082)								
FJ2402040-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.54 mg/L	2.5 mg/L	102	75.0	125	
Anions and Nutr	rients (QCLot: 1548083)								
FJ2402040-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.520 mg/L	0.5 mg/L	104	75.0	125	
Anions and Nutr	rients (QCLot: 1548084)								·
FJ2402040-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	
Anions and Nutr	rients (QCLot: 1548087)								
FJ2402040-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0291 mg/L	0.03 mg/L	96.9	70.0	130	
Anions and Nutr	rients (QCLot: 1548290)								•
YL2400890-006	GLG-2024-00002-016	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0283 mg/L	0.03 mg/L	94.3	70.0	130	
Anions and Nutr	rients (QCLot: 1548294)								·
VA24B7156-006	Anonymous	Chloride	16887-00-6	E235.CI	100 mg/L	100 mg/L	100	75.0	125	
Anions and Nutr	rients (QCLot: 1548296)								•
VA24B7156-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	
Anions and Nutr	rients (QCLot: 1548297)								•
VA24B7156-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	
Anions and Nutr	rients (QCLot: 1548298)								
VA24B7156-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.505 mg/L	0.5 mg/L	101	75.0	125	
Anions and Nutr	rients (QCLot: 1548471)								
VA24B6807-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0466 mg/L	0.05 mg/L	93.2	70.0	130	
Anions and Nutr	rients (QCLot: 1548476)								
VA24B7145-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.104 mg/L	0.1 mg/L	104	75.0	125	
Organic / Inorga	nic Carbon (QCLot: 15	48474)								
VA24B7145-001	Anonymous	Carbon, total organic [TOC]		E355-L	5.06 mg/L	5 mg/L	101	70.0	130	
Total Metals (Q	CLot: 1550476)									
VA24B6236-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000993 mg/L	0 mg/L	99.3	70.0	130	
Total Metals (Q	CLot: 1550641)									
FJ2402029-002	Anonymous	Aluminum, total	7429-90-5	E420	0.168 mg/L	0.2 mg/L	83.9	70.0	130	
		Antimony, total	7440-36-0	E420	0.0178 mg/L	0.02 mg/L	88.8	70.0	130	
		Arsenic, total	7440-38-2	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	

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Client: Stantec Consulting Ltd.



ub-Matrix: Water							Matrix Spil	ke (MS) Report		
					Spi	ke	Recovery (%)	Recovery	Limits (%)	
aboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
otal Metals (QC	Lot: 1550641) - conti	nued								
FJ2402029-002	Anonymous	Barium, total	7440-39-3	E420	ND mg/L		ND	70.0	130	
		Beryllium, total	7440-41-7	E420	0.0352 mg/L	0.04 mg/L	88.1	70.0	130	
		Bismuth, total	7440-69-9	E420	0.00836 mg/L	0.01 mg/L	83.6	70.0	130	
		Boron, total	7440-42-8	E420	0.097 mg/L	0.1 mg/L	97.4	70.0	130	
		Cadmium, total	7440-43-9	E420	0.00367 mg/L	0.004 mg/L	91.8	70.0	130	
		Calcium, total	7440-70-2	E420	ND mg/L		ND	70.0	130	
		Cesium, total	7440-46-2	E420	0.00904 mg/L	0.01 mg/L	90.4	70.0	130	
		Chromium, total	7440-47-3	E420	0.0357 mg/L	0.04 mg/L	89.3	70.0	130	
		Cobalt, total	7440-48-4	E420	0.0174 mg/L	0.02 mg/L	87.0	70.0	130	
		Copper, total	7440-50-8	E420	0.0171 mg/L	0.02 mg/L	85.6	70.0	130	
		Iron, total	7439-89-6	E420	1.72 mg/L	2 mg/L	86.0	70.0	130	
		Lead, total	7439-92-1	E420	0.0166 mg/L	0.02 mg/L	82.9	70.0	130	
		Lithium, total	7439-93-2	E420	0.0806 mg/L	0.1 mg/L	80.6	70.0	130	
		Magnesium, total	7439-95-4	E420	ND mg/L		ND	70.0	130	
		Manganese, total	7439-96-5	E420	0.0174 mg/L	0.02 mg/L	86.9	70.0	130	
		Molybdenum, total	7439-98-7	E420	0.0185 mg/L	0.02 mg/L	92.7	70.0	130	
		Nickel, total	7440-02-0	E420	0.0332 mg/L	0.04 mg/L	83.1	70.0	130	
		Phosphorus, total	7723-14-0	E420	9.50 mg/L	10 mg/L	95.0	70.0	130	
		Potassium, total	7440-09-7	E420	3.29 mg/L	4 mg/L	82.2	70.0	130	
		Rubidium, total	7440-17-7	E420	0.0185 mg/L	0.02 mg/L	92.7	70.0	130	
		Selenium, total	7782-49-2	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	
		Silicon, total	7440-21-3	E420	8.31 mg/L	10 mg/L	83.1	70.0	130	
		Silver, total	7440-22-4	E420	0.00356 mg/L	0.004 mg/L	88.9	70.0	130	
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130	
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130	
		Sulfur, total	7704-34-9	E420	ND mg/L		ND	70.0	130	
		Tellurium, total	13494-80-9	E420	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	
		Thallium, total	7440-28-0	E420	0.00330 mg/L	0.004 mg/L	82.4	70.0	130	
		Thorium, total	7440-29-1	E420	0.0173 mg/L	0.02 mg/L	86.7	70.0	130	
		Tin, total	7440-31-5	E420	0.0183 mg/L	0.02 mg/L	91.5	70.0	130	
		Titanium, total	7440-32-6	E420	0.0366 mg/L	0.04 mg/L	91.6	70.0	130	
		Tungsten, total	7440-33-7	E420	0.0175 mg/L	0.02 mg/L	87.6	70.0	130	
		Uranium, total	7440-61-1	E420	ND mg/L		ND	70.0	130	
		Vanadium, total	7440-62-2	E420	0.0916 mg/L	0.1 mg/L	91.6	70.0	130	
		Zinc, total	7440-66-6	E420	0.346 mg/L	0.4 mg/L	86.6	70.0	130	
		Zirconium, total	7440-67-7	E420	0.0370 mg/L	0.04 mg/L	92.4	70.0	130	
ssolved Metals	(QCLot: 1550713)									
J2402027-002	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L		ND	70.0	130	
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130	
		Potassium, dissolved	7440-09-7	E421	4.06 mg/L	4 mg/L	101	70.0	130	
		Sodium, dissolved	7440-23-5	E421	ND mg/L		ND	70.0	130	
olatile Organic (Compounds (QCLot:	1549011)								
L2400890-001	GLG-2024-00002-009	Benzene	71-43-2	E611A	95.8 μg/L	100 μg/L	95.8	60.0	140	

Page : 17 of 17

Work Order: YL2400890 Amendment 2
Client: Stantec Consulting Ltd.



Sub-Matrix: Water					Matrix Spike (MS) Report									
					Spi	ike	Recovery (%)	Recovery	Limits (%)					
Laboratory sample	D Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier				
Volatile Organic	Compounds (QCLot: 1	549011) - continued												
YL2400890-001	GLG-2024-00002-009	Ethylbenzene	100-41-4	E611A	92.6 µg/L	100 μg/L	92.6	60.0	140					
		Toluene	108-88-3	E611A	93.1 μg/L	100 μg/L	93.1	60.0	140					
		Xylene, m+p-	179601-23-1	E611A	196 μg/L	200 μg/L	97.8	60.0	140					
		Xylene, o-	95-47-6	E611A	92.0 μg/L	100 μg/L	92.0	60.0	140					
Hydrocarbons	(QCLot: 1549008)													
FJ2402027-002	Anonymous	F1 (C6-C10)		E581.VH+F1	5740 μg/L	6310 µg/L	91.0	60.0	140					



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Page | of |

EFER TO BACK P.	keleased by:	olonnod bu	□ YES	re samples for hu	☐ YES	re samples taken	Drinking W												(ALS use only)	ALS Lab Work	.SD:	O / AFE:	lob / Project #: (ALS Client Code / QUOTE #:		Contact	Company:		nvoice To	,	-				Company:
EFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION	Date:	SHIPMENT RELEASE (client use)	YES X NO	re samples for human consumption/ use?	TYES X NO	from a Regulated DW System?	Drinking Water (DW) Samples (client use)				66-2024-00007-		6-2024-00002-	6-2021-0002-	GLG-3024-00002-017	GL6-2024-00002-	-2024-0000a-	GLG-3624-00002-009	Sample Identification and/or Coordinates (This description will appear on the report)	ALS Lab Work Order # (ALS use only):			lob / Project #: Gordon Lake - Phase LTMP - Water		Project Information	ı	Ī	Conv of Invoice with Bench	3	Y1A 2DA	4910 53 Street	Company address below will appear on the final report	204 509-9864	Natalie Normandeau	Stantec Consulting Ltd.
VEORMATION OT: 10	Time: Received by:	-					Notes / Specify Limits for				ಂವಿಡಿ	073	016	Sie	410	PIO	020	09	nd/or Coordinates pear on the report)	ALS Contact	Location	Requisitioner:			-	Cinal C	oeiect.		Email 3	Email 2	Email 1	10	□ co ₁	Merge	
WW.						(Excel CUC only)	Notes / Specify Limits for result evaluation by selecting from drop-down below				11-2-1-24	11-22-24	11-241-24	11-24-24	11-1-29	11-24-24	11-141-24	11-1-1-24	Date (dd-mmm-yy)	ontact:	n	tioner:	Major/Minor Code:	AFE/Cost Center:		Email 2	1 0	Invoice	ryan.we	steve.hannington@stantec.com	Email 1 or Fax natalie.normandeau@stantec.com	Select Distribution: 2 EMAIL	Compare Results to Criteria on Report - provide details below if box checked	Merge QC/QCI Reports with COA . TY YES	13
K. My	Date: 19 11	INITIAL SHIPMENT RECEPTION (ALS use only)					ng from drop-down below				14.20 GW	14:15 GW	M:10 SE			12:30 Sw		09,45 Sw	Time Samp	Sampler: T. Chadich			Routing Code:	PO#	Oil and Gas Required Fields (client use)	allied:com	MAIL MAIL FAX		itec.com	@stantec.com	au@stantec.com	☐ MAIL ☐ FAX	t - provide details below if box of	A. TYPES TO NO TOWA	
11:40	_	-	200	COOPER CA	Cooling Method:		-	-			-	7	م	٥	9	2			-	BER Water Pa	_	_	DN.	ГА	INE	R	-		Date		Same				
	Received by:	-		INITIAL COOLER TEMPERATURES C			CAMO				×	×	×	×	×	×	×		Surface Surface	Water Pa	ackag	e Si	est E	_	+	Indicate Filtered (F), F		For all tests with ru	Date and Time Required for all E&P TATs:	Additional fees may apply to	Same day [E2] if received by 10am M-S - 200% rush surcharge.	2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum to day [F] if received by 3pm M-F - 100%, rush surcharge minimum	3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum	Routine [R] if received by 3pm M-F - no surcharges apply 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum	naisanbau (1911) value anno 1911
	Date:	FINAL SHIPMENT RECEPTION (ALS use only)		N/A Sample C	☐ ICE PAO	Commente Second and Second	E DECEMPT DETAIL S (A)		Telephone: +1 867 873 5593	e ci				1 1 1 2	Vork Ord	Yellowknife	Environme	-								Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	Analysis Request	For all leasts with rush TATs requested, please contact your AM to confirm availability.	PTATS:	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.	M-S - 200% rush surcharge.	50% rush surcharge minimum	25% rush surcharge minimum	no surcharges apply 20% rush surcharge minimum	A1) Requested
		ON (ALS use only)		Sample Custody Seals Intact: YES	LING	a use only)			67 873 5593	200 THE CO.	対象		11 TO	10000	Work Order Reference	TD I	Environmental Division									erved (F/P) below		our AM to confirm availability.	Jd-romm-yy. hhammam/pri	itory holidays and for non-routin			AFFIX ALS BARCODE LABEL HERE		
200	Time:	-	- C	YES N/A	INITIATED		-		-								-	1	EXTEN	LES O	TOR	AG	ER	-	UIR	ED			pro	ne tests.		Henry	E LABEL HERE		

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 was the Jerms and Conditions as specified on the back page of the white - report copy.

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

MAY 2023 FRED

ALS Canada Ltd.

Contact

Address



CERTIFICATE OF ANALYSIS

Work Order : YL2400921 Page

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Account Manager : Natalie Normandeau : Oliver Gregg

> : 4910 53 Street Address : 314 Old Airport Road, Unit 116 Yellowknife NT Canada X1A 2P4

Yellowknife NT Canada X1A 3T3

: 1 of 4

Telephone Telephone : 1 867 445 7143 **Project** Date Samples Received : 123515016 : 16-Jul-2024 14:30

PO **Date Analysis Commenced** : 20-Jul-2024 C-O-C number Issue Date : 24-Jul-2024 11:57

Sampler : Tarek Ghadieh

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 1 No. of samples analysed : 1

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
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Inorganics, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia

Page : 2 of 4

Work Order : YL2400921

Client : Stantec Consulting Ltd.

Project : 123515016



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
mg/L	milligrams per litre

<: 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.

Sample Comments

Sample	Client Id	Comment
YL2400921-001	GLG-2024-00002-005	Water sample for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

Qualifiers

Qualifier	Description
DLA	Detection Limit adjusted for required dilution.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference,
	colour, turbidity).

Page 3 of 4 Work Order YL2400921

Stantec Consulting Ltd. 123515016 Client

Project



Analytical Results

Sub-Matrix: Water Client sample ID					GLG-2024-0000				
(Matrix: Water)		2-005							
			Client samp	ling date / time	16-Jul-2024 09:15				
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2400921-001				
					Result				
Physical Tests									
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	1320				
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7		0.0050	mg/L	0.396				
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.109				
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	7.72				
Total Metals									
Aluminum, total	7429-90-5		0.0030	mg/L	0.246				
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00114				
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00757				
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.0643				
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L	<0.000100 DLA				
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L	<0.000100 DLA				
Boron, total	7440-42-8	E420/VA	0.010	mg/L	0.048				
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	0.0000860				
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	465				
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	<0.000020 DLA				
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	0.00110				
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	0.0147				
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	0.00195				
Iron, total	7439-89-6	E420/VA	0.010	mg/L	6.80				
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.00138				
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0034				
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	39.0				
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	2.83				
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050				
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.00956				
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	0.0291				
Phosphorus, total	7723-14-0		0.050	mg/L	0.113				
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	14.2				
•						ı	'	•	•

Page : 4 of 4

Work Order : YL2400921

Client : Stantec Consulting Ltd.

Project : 123515016

ALS

Analytical Results

Sub-Matrix: Water		CI	lient sample ID	GLG-2024-0000 2-005	 	
(Matrix: Water)				2-005		
		Client samp	oling date / time	16-Jul-2024 09:15	 	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2400921-001	 	
				Result	 	
Total Metals						
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00275	 	
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.000364	 	
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	5.87	 	
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	0.000069	 	
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	41.3	 	
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	1.96	 	
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	387	 	
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00040 DLA	 	
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000020 DLA	 	
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00020 DLA	 	
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	0.00062	 	
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	<0.00480 DLM	 	
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00020 DLA	 	
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.0181	 	
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	0.00103	 	
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	0.0064	 	
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	0.00051	 	
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Please refer to the General Comments section for an explanation of any result qualifiers detected.

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : YL2400921 Page : 1 of 6

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address :4910 53 Street Address :314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 : 1 867 445 7143

 Project
 : 123515016
 Date Samples Received
 : 16-Jul-2024 14:30

PO : ---- Issue Date : 24-Jul-2024 11:58

Sampler : Tarek Ghadieh

٠ ____

Site ·

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received :1
No. of samples analysed :1

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

C-O-C number

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

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.

Page : 3 of 6 Work Order : YL2400921

Client : Stantec Consulting Ltd.

Project : 123515016



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: x = Holding time exceedance; √ = Within Holding Time

 Analyte Group: Analytical Method
 Method
 Sampling Date
 Extraction / Preparation
 Analysis

Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	reparation		Analysis			
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00002-005	E298	16-Jul-2024	21-Jul-2024	28 days	5 days	✓	22-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00002-005	E372-U	16-Jul-2024	21-Jul-2024	28 days	5 days	4	23-Jul-2024	28 days	8 days	*
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combւ	ıstion (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00002-005	E355-L	16-Jul-2024	21-Jul-2024	28 days	5 days	✓	21-Jul-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS					<u> </u>					
HDPE - total (lab preserved) GLG-2024-00002-005	E508	16-Jul-2024	23-Jul-2024	0 hrs	160 hrs	# UCP	23-Jul-2024	0 hrs	160 hrs	# UCP
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) GLG-2024-00002-005	E420	16-Jul-2024	20-Jul-2024	180 days	4 days	✓	23-Jul-2024	180 days	7 days	*

Legend & Qualifier Definitions

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

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

Page : 4 of 6 Work Order : 4 v12400921

Client : Stantec Consulting Ltd.

Project : 123515016



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		Evaluati	on: × = QC freque	ency outside spe	ecification; ✓ = (QC frequency wit	hin specification
Quality Control Sample Type				ount		Frequency (%)	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
Ammonia by Fluorescence	E298	1556796	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1558861	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1554810	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1556798	1	11	9.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1556795	1	17	5.8	5.0	✓
Laboratory Control Samples (LCS)							
Ammonia by Fluorescence	E298	1556796	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1558861	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1554810	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1556798	1	11	9.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1556795	1	17	5.8	5.0	✓
Method Blanks (MB)							
Ammonia by Fluorescence	E298	1556796	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1558861	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1554810	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1556798	1	11	9.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1556795	1	17	5.8	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1556796	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1558861	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1554810	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1556798	1	11	9.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1556795	1	17	5.8	5.0	✓

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Client : Stantec Consulting Ltd.

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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
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Vancouver	Water	АРНА 2340В	"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.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Vancouver	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Total Organic Carbon by Combustion	EP355 ALS Environmental - Vancouver	Water		Preparation for Total Organic Carbon by Combustion

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Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental - Vancouver			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Issue Date

Work Order : YL2400921

Client : Stantec Consulting Ltd.
Contact : Natalie Normandeau

Address : 4910 53 Street

Yellowknife NT Canada X1A 2P4

Telephone : ----

Project : 123515016

PO :----C-O-C number :----

Sampler : Tarek Ghadieh

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 1
No. of samples analysed : 1

Page : 1 of 10

Laboratory : ALS Environmental - Yellowknife

Account Manager : Oliver Gregg

Address : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone :1 867 445 7143

Date Samples Received :16-Jul-2024 14:30

Date Analysis Commenced :20-Jul-2024

: 24-Jul-2024 11:57

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
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Inorganics, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia

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Client : Stantec Consulting Ltd.

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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.

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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).

ub-Matrix: Water			Laboratory Duplicate (DUP) Report								
aboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifie
Anions and Nutrien	ts (QC Lot: 1556795)										
(S2402644-005	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0400	mg/L	1.97	1.99	0.892%	20%	
nions and Nutrien	ts (QC Lot: 1556796)										
KS2402665-001	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: 1556	798)									
(S2402662-002	Anonymous	Carbon, total organic [TOC]		E355-L	0.50	mg/L	5.12	5.77	11.9%	20%	
otal Metals (QC Lo	ot: 1554810)										
J2402064-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0129	0.0129	0.00003	Diff <2x LOR	
		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	0.00354	0.00355	0.285%	20%	
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.337	0.344	1.99%	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	0.240	0.241	0.709%	20%	
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
		Calcium, total	7440-70-2	E420	0.050	mg/L	86.6	89.5	3.21%	20%	
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000012	0.000011	0.000001	Diff <2x LOR	
		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	0.00075	0.00076	0.00001	Diff <2x LOR	
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	
		Iron, total	7439-89-6	E420	0.010	mg/L	15.2	15.4	0.720%	20%	
		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	0.0707	0.0714	0.989%	20%	
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	20.1	20.6	2.31%	20%	
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.957	0.994	3.77%	20%	
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00559	0.00560	0.323%	20%	
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00054	0.00056	0.00002	Diff <2x LOR	
		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	1.54	1.59	3.60%	20%	
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00242	0.00244	0.528%	20%	
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

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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 Lo	ot: 1554810) - continued													
FJ2402064-001	Anonymous	Silicon, total	7440-21-3	E420	0.10	mg/L	6.11	6.15	0.747%	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	40.7	42.0	3.03%	20%				
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.385	0.391	1.44%	20%				
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1.36	1.28	0.08	Diff <2x LOR				
		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	<0.000010	<0.000010	0	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	0.000478	0.000472	1.31%	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	<0.00020	<0.00020	0	Diff <2x LOR				
Total Metals (QC Lo	ot: 1558861)													
YL2400913-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.000050	<0.0000050	0	Diff <2x LOR				

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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

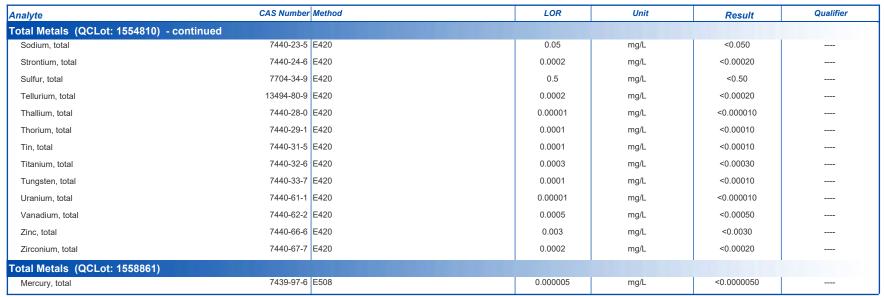
Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 15567	95)					
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	
Anions and Nutrients (QCLot: 15567						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	
Organic / Inorganic Carbon (QCLot:						
Carbon, total organic [TOC]		E355-L	0.5	mg/L	<0.50	
otal Metals (QCLot: 1554810)						
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	

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Client : Stantec Consulting Ltd.

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Sub-Matrix: Water





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Client : Stantec Consulting Ltd.

Project : 123515016



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	I LOR	Unit	Target Concentration	LCS	Low	High	Qualifie			
Anions and Nutrients (QCLot: 1556795)											
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	0.05 mg/L	96.3	80.0	120				
Anions and Nutrients (QCLot: 1556796)											
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	0.2 mg/L	104	85.0	115				
Organic / Inorganic Carbon (QCLot: 1556798)											
Carbon, total organic [TOC]	E355-L	0.5	mg/L	8.57 mg/L	103	80.0	120				
Total Metals (QCLot: 1554810)											
Aluminum, total	7429-90-5 E420	0.003	mg/L	2 mg/L	112	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	109	80.0	120				
Barium, total	7440-39-3 E420	0.0001	mg/L	0.25 mg/L	100	80.0	120				
Beryllium, total	7440-41-7 E420	0.00002	mg/L	0.1 mg/L	100	80.0	120				
Bismuth, total	7440-69-9 E420	0.00005	mg/L	1 mg/L	101	80.0	120				
Boron, total	7440-42-8 E420	0.01	mg/L	1 mg/L	89.2	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	99.5	80.0	120				
Cesium, total	7440-46-2 E420	0.00001	mg/L	0.05 mg/L	102	80.0	120				
Chromium, total	7440-47-3 E420	0.0005	mg/L	0.25 mg/L	108	80.0	120				
Cobalt, total	7440-48-4 E420	0.0001	mg/L	0.25 mg/L	105	80.0	120				
Copper, total	7440-50-8 E420	0.0005	mg/L	0.25 mg/L	105	80.0	120				
Iron, total	7439-89-6 E420	0.01	mg/L	1 mg/L	97.0	80.0	120				
Lead, total	7439-92-1 E420	0.00005	mg/L	0.5 mg/L	100	80.0	120				
Lithium, total	7439-93-2 E420	0.001	mg/L	0.25 mg/L	95.2	80.0	120				
Magnesium, total	7439-95-4 E420	0.005	mg/L	50 mg/L	106	80.0	120				
Manganese, total	7439-96-5 E420	0.0001	mg/L	0.25 mg/L	108	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	107	80.0	120				
Phosphorus, total	7723-14-0 E420	0.05	mg/L	10 mg/L	114	80.0	120				
Potassium, total	7440-09-7 E420	0.05	mg/L	50 mg/L	104	80.0	120				
Rubidium, total	7440-17-7 E420	0.0002	mg/L	0.1 mg/L	110	80.0	120				
Selenium, total	7782-49-2 E420	0.00005	mg/L	1 mg/L	105	80.0	120				
Silicon, total	7440-21-3 E420	0.1	mg/L	10 mg/L	111	80.0	120				

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Client : Stantec Consulting Ltd.

Project : 123515016



		Laboratory Control Sample (LCS) Report							
					Spike	Recovery (%)	Recovery	Limits (%)	
	CAS Number	Method	thod LOR		Target Concentration	LCS	Low	High	Qualifier
: 1554810) - contir	nued								
·	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	100	80.0	120	
	7440-23-5	E420	0.05	mg/L	50 mg/L	110	80.0	120	
	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	
	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	
	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	
	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	
	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	
	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	
	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	105	80.0	120	
	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	
	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	102	80.0	120	
	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	
	7440-66-6	E420	0.003	mg/L	0.5 mg/L	103	80.0	120	
	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	98.2	80.0	120	
: 1558861)								1	
,	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	
: 1558861)	7439-97-6	E508	0.000005	mg/L	0 mg/L	-	_ 100	_ 100 80.0	_ 100 80.0 120

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Client : Stantec Consulting Ltd.

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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								
					Spi	ke	Recovery (%)	Recovery	Limits (%)					
aboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifie				
nions and Nutri	ents (QCLot: 15567	' 95)												
/A24B6636-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0487 mg/L	0.05 mg/L	97.4	70.0	130					
nions and Nutri	ents (QCLot: 15567	796)												
(S2402662-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L		ND	75.0	125	MS-E				
rganic / Inorgan	ic Carbon (QCLot:	1556798)												
/A24B6849-002	Anonymous	Carbon, total organic [TOC]		E355-L	5.20 mg/L	5 mg/L	104	70.0	130					
otal Metals (QC	Lot: 1554810)													
J2402064-002	Anonymous	Aluminum, total	7429-90-5	E420	0.202 mg/L	0.2 mg/L	101	70.0	130					
	,	Antimony, total	7440-36-0	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130					
		Arsenic, total	7440-38-2	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130					
		Barium, total	7440-39-3	E420	ND mg/L		ND	70.0	130					
		Beryllium, total	7440-41-7	E420	0.0391 mg/L	0.04 mg/L	97.8	70.0	130					
		Bismuth, total	7440-69-9	E420	0.00926 mg/L	0.01 mg/L	92.6	70.0	130					
		Boron, total	7440-42-8	E420	0.090 mg/L	0.1 mg/L	90.2	70.0	130					
		Cadmium, total	7440-43-9	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130					
		Calcium, total	7440-70-2	E420	ND mg/L	0.004 Hig/L	ND	70.0	130					
		Cesium, total	7440-46-2	E420	0.0102 mg/L		102	70.0	130					
		Chromium, total	7440-46-2	E420	0.0102 mg/L 0.0410 mg/L	0.01 mg/L	102	70.0	130					
		· ·				0.04 mg/L								
		Cobalt, total	7440-48-4	E420	0.0195 mg/L	0.02 mg/L	97.3	70.0	130					
		Copper, total	7440-50-8	E420	0.0192 mg/L	0.02 mg/L	96.2	70.0	130					
		Iron, total	7439-89-6	E420	1.92 mg/L	2 mg/L	95.8	70.0	130					
		Lead, total	7439-92-1	E420	0.0192 mg/L	0.02 mg/L	95.9	70.0	130					
		Lithium, total	7439-93-2	E420	0.0916 mg/L	0.1 mg/L	91.6	70.0	130					
		Magnesium, total	7439-95-4	E420	ND mg/L		ND	70.0	130					
		Manganese, total	7439-96-5	E420	0.0183 mg/L	0.02 mg/L	91.6	70.0	130					
		Molybdenum, total	7439-98-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130					
		Nickel, total	7440-02-0	E420	0.0385 mg/L	0.04 mg/L	96.2	70.0	130					
		Phosphorus, total	7723-14-0	E420	10.9 mg/L	10 mg/L	109	70.0	130					
		Potassium, total	7440-09-7	E420	3.81 mg/L	4 mg/L	95.3	70.0	130					
		Rubidium, total	7440-17-7	E420	0.0201 mg/L	0.02 mg/L	100	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	9.46 mg/L	10 mg/L	94.6	70.0	130					
		Silver, total	7440-22-4	E420	0.00432 mg/L	0.004 mg/L	108	70.0	130					
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130					
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130					
		Sulfur, total	7704-34-9	E420	22.5 mg/L	20 mg/L	112	70.0	130					
		Tellurium, total	13494-80-9	E420	0.0422 mg/L	0.04 mg/L	105	70.0	130					
		Thallium, total	7440-28-0	E420	0.00374 mg/L	0.004 mg/L	93.5	70.0	130					
	1	Thorium, total	7440-29-1	E420	0.0193 mg/L	0.02 mg/L	96.4	70.0	130					

Page : 10 of 10 Work Order : YL2400921

Client : Stantec Consulting Ltd.

Project : 123515016



Sub-Matrix: Water				Matrix Spike (MS) Report								
					Spi	ke	Recovery (%)	Recovery	Limits (%)			
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier		
Total Metals (QC	Lot: 1554810) - continu	ed										
FJ2402064-002	Anonymous	Tin, total	7440-31-5	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130			
		Titanium, total	7440-32-6	E420	0.0389 mg/L	0.04 mg/L	97.3	70.0	130			
		Tungsten, total	7440-33-7	E420	0.0199 mg/L	0.02 mg/L	99.3	70.0	130			
		Uranium, total	7440-61-1	E420	0.00392 mg/L	0.004 mg/L	98.0	70.0	130			
		Vanadium, total	7440-62-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130			
		Zinc, total	7440-66-6	E420	0.387 mg/L	0.4 mg/L	96.9	70.0	130			
		Zirconium, total	7440-67-7	E420	0.0394 mg/L	0.04 mg/L	98.5	70.0	130			
Total Metals (QC	Lot: 1558861)											
YL2400913-003	Anonymous	Mercury, total	7439-97-6	E508	0.0000990 mg/L	0 mg/L	99.0	70.0	130			

Qualifiers

Qualifier Description

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



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC
Number
_
4
1

Released by:	Are samples for human drinking water use? Yes X No	Are samples laken from a Regulated DW System? T Yes No	Drinking Water ((lab use only)	ALS Lab Work Order # (lab use only)	LSD:	PO/AFE:		ALS Quote #: YL24-	Contact			invoice to Same	1	(204)		Address: 4910		Company: Stante	Report To
Date: Papical 2014/67 Ge FOR ALS LOCATIONS AND SAM	Irinking water use?	Regulated DW System?	Drinking Water (DW) Samples¹ (client use)				6-16-2624-00003	Sample ide (This descr	er# (lab use only)			5016	YL24-STAC100-003	Project Informa	Switters Consulting Ltg.	Copy of Invoice with Report	same as Keport To	7987-076 (100)	(204) 509-9864	Yellowknife, NT X1A 2P4	4910 53 St, PO Box 1777	Natalie Normandeau	Stantec Consulting Ltd.	
Time:		Only tet me					3003 -005	Sample Identification and/or Coordinates (This description will appear on the report)					rioi:	tloo		「Yes ▼ No	「Yes ™ No							
Received by:	package - well went dry	tet metals buttle is 1/3	Special Instructions / Specify Criteria to add on report (client Use)					es t)	ALS Contact:	Location:	Activity Code:	GL Account:		Email 2	Email 1 or Fax	Select Invoice Distribution:		Email 2	Email 1 or Fax	Select Distribution:	Criteria on Re	Quality Contro	Select Report Format:	
INITIAL SHIPMENT RECEPTION (lab use only) Date: 16/2 4 T	dry	1/2 nutrients hottle Filled a submitted	fy Criteria to add on				16-121-24	Date (dd-mmm-yy)					Oil and Gas Required Fields (client use)	1	SAPinvoices@stantec.com		Invoice Distribution	steve.hannington@stantec.com	talle.nom	tion: EMAIL	Criteria on Report - provide details below if hox checked	epor	Format: 🔽 🖂	Report Format / Distribution
Date: /6/2 4 Time:	bac hom	ML Silled	report (client Use)				09:15	Time (th:mm)	Sampler: Tank		S. Control	Routing Code:	d Fields (client us		ntec.com	EMAIL MAIL	stribution	estantec.com			2	מ	District Dis	/ Dietribution
ŏ		n.H.d					33	Sample Type	C Ghadigh				е)			FAX				FAX	NO	00(0	NA JAMOSTAL V	
Received by:	INITIAL COOLER	Ice packs Yes	1				7		water Pa Water P			VP				4	Indicate F		Specify Date Re	E2 Same da	-	4 B		
FINAL SHIPMENT RE	INITIAL COOLER TEMPERATURES *C	No Custod	SAMPLE CONDITION AS RECEIVED (lab use only)		Telephone: +1 867 873 6693			イ L22	Environmen Yellowknife								Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) helpsy	Analysis	Specify Date Required for E2,E or P:	Same day or weekend emergency - contact ATS to confirm TAT and constant ATS to confirm TAT.	Finergency (1-2 but days if received by 3pm) 50% surcharge - contact ALS to confirm TAT	Regular (Standard IA) if received by 3 pm - business days)	Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)	
CEPTION (lab use only) Date: Time:	FINAL GOOLER TEMPERATURES	Custody seal infact Yes	RECEIVED (lab use only	f	67 873 6683		I	YL2400921	Environmental Division Yellowknife	1 1 1							ed and Preserved (F/P) helow	Analysis Request	Section 100 one such	t all s no confirm TAT and count	50% surcharge - contact ALS t	- business days)	ound Time (TAT) is not availab	
	TURES °C	88				R	2		Nu	mber	of C	onta	iners		1		-		oige	ALS to contirm TAT	o confirm TAT		(e for all tests)	

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. YELLOW - CLIENT COPY

ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Work Order : **YL2401240** Page : 1 of 14

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg
Address : 4910 53 Street Address : 314 Old Airpor

: 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 2P4

Yellowknife NT Canada X1A 3T3

 Telephone
 : -- Telephone
 : 1 867 445 7143

 Project
 : Gordon Lake - Phase 1 LTMP - Water
 Date Samples Received
 : 21-Aug-2024 12:51

PO : --- Date Analysis Commenced : 23-Aug-2024

C-O-C number : ---- Issue Date : 30-Aug-2024 18:07

Sampler : Magda Celejewski, Tarek Ghadieh

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 11
No. of samples analysed : 11

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
- Surrogate Control Limits

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	
Angelo Salandanan	Lab Assistant	Metals, Burnaby, British Columbia	
Cynthia Bauer	Organic Supervisor	Organics, Calgary, Alberta	
Dan Gebert	Laboratory Analyst	Metals, Burnaby, British Columbia	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia	
Owen Cheng		Metals, Burnaby, British Columbia	
Shantal Breeze	Laboratory Analyst	Organics, Calgary, Alberta	
Sorina Motea	Laboratory Analyst	Organics, Calgary, Alberta	
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia	

Page : 2 of 14 Work Order : YL2401240

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less 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.

Sample Comments

Sample	Client Id	Comment
YL2401240-001	GLG-2024-00003-005	Water sample for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

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).

>: greater than.

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					3-005	3-006	3-019	3-004	3-003
			Client samp	ling date / time	20-Aug-2024 10:00	20-Aug-2024 10:50	20-Aug-2024 00:00	20-Aug-2024 11:40	20-Aug-2024 12:15
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401240-001	YL2401240-002	YL2401240-003	YL2401240-004	YL2401240-005
					Result	Result	Result	Result	Result
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L		169	170	276	731
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L		169	170	276	731
Conductivity		E100/VA	2.0	μS/cm		579	582	798	2260
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	1090	273	308	381	1200
рН		E108/VA	0.10	pH units		8.27	8.26	7.64	7.90
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L		369	385	504	1730
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L		<1.0	<1.0	21.3	51.0
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	1060	300	301	392	1200
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.202	0.0059	0.0116	0.326	1.69
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L		1.09	1.03	2.80	32.0
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L		4.54	4.53	<0.0250 DLDS	<0.100 DLDS
		A							
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L		20.1	20.0	<0.111	<0.443
Niderada - A Niderida - (no. Al)		VA	0.0050	na c n		4.54	4.50	<0.0055	ZO 400
Nitrate + Nitrite (as N)		EC235.N+N/V	0.0050	mg/L		4.54	4.53	<0.0255	<0.102
Nitrite (as N)	14797-65-0	A E235.NO2-L/V	0.0010	mg/L		0.0048	0.0047	<0.0050 DLDS	<0.0200 DLDS
, ,		Α							
Nitrite (as NO2)	14797-65-0	EC235.NO2A/	0.0030	mg/L		0.0157	0.0154	<0.0164	<0.0656
		VA							
Phosphate, ortho-, dissolved (as P)	14265-44-2		0.0010	mg/L		0.0082	0.0074	<0.0010	<0.0010
Phosphorus, total	7723-14-0		0.0020	mg/L	0.0095	0.0179	0.0176	0.0219	0.102
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		121	122	162	661
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	7.37	4.46	4.05	10.5	19.0
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0375	0.0050	0.0048	0.0417	0.0241

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				3-005	3-006	3-019	3-004	3-003
			ling date / time	20-Aug-2024 10:00	20-Aug-2024 10:50	20-Aug-2024 00:00	20-Aug-2024 11:40	20-Aug-2024 12:15
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401240-001	YL2401240-002	YL2401240-003	YL2401240-004	YL2401240-005
				Result	Result	Result	Result	Result
Total Metals Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	0.00093	0.00476	0.00510	0.00030	<0.00020 DLA
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.0155	0.00416	0.00411	0.0223	0.0168
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0525	0.0264	0.0263	0.0522	0.269
Beryllium, total	7440-41-7 E420/VA	0.00010	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100 DLA
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000100 DLA	<0.00050	<0.00050	<0.000100 DLA	<0.000100 DLA
Boron, total	7440-42-8 E420/VA	0.010	mg/L	0.072	<0.010	<0.010	0.037	0.104
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	0.0000672	0.0000130	0.0000162	0.000128	0.0000113
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	374	93.2	107	127	334
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000020 DLA	<0.000010	<0.00010	<0.000020 DLA	<0.000020 DLA
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	0.00141	<0.00050	<0.00050	<0.00100 DLA	<0.00100 DLA
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.0118	0.00021	0.00022	0.00506	0.0216
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00140	0.00135	0.00124	0.00653	<0.00100 DLA
Iron, total	7439-89-6 E420/VA	0.010	mg/L	7.70	0.021	0.024	9.53	20.2
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	0.000340	0.000086	0.000071	0.00230	<0.000100 DLA
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0038	0.0016	0.0019	0.0042	0.0282
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	37.7	9.74	9.92	15.6	87.8
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	1.67	0.0148	0.0193	5.44	4.23
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.00351	0.00620	0.00654	0.00178	0.00117
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.0116	0.00216	0.00217	0.0152	0.00147
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.100 DLA	<0.050	<0.050	<0.100 DLA	0.108
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	15.4	1.79	1.76	4.92	25.5
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00261	0.00116	0.00113	0.00316	0.00170
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.000427	0.00199	0.00172	0.000107	0.000162
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	8.45	5.13	4.83	8.03	10.4
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000020 DLA	<0.000010	<0.000010	0.000032	<0.000020 DLA
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	47.7	3.45	3.48	15.4	113
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	1.82	0.332	0.358	0.427	2.20
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	313	44.7	41.9	61.9	231
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00040 DLA	<0.00020	<0.00020	<0.00040 DLA	<0.00040 DLA

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					3-005	3-006	3-019	3-004	3-003
			Client samp	ling date / time	20-Aug-2024 10:00	20-Aug-2024 10:50	20-Aug-2024 00:00	20-Aug-2024 11:40	20-Aug-2024 12:15
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401240-001	YL2401240-002	YL2401240-003	YL2401240-004	YL2401240-005
					Result	Result	Result	Result	Result
Total Metals		E4000/A	0.000040		0.000024	*0.000040	0.000044	40 000000 PLA	40,000000 PLA
Thallium, total	7440-28-0		0.000010	mg/L	0.000031	<0.000010	0.000014	<0.000020 DLA	<0.000020 DLA
Thorium, total	7440-29-1		0.00010	mg/L	<0.00020 DLA	<0.00010	<0.00010	<0.00020 DLA	<0.00020 DLA
Tin, total	7440-31-5		0.00010	mg/L	<0.00020 DLA	<0.00010	<0.00010	<0.00020 DLA	<0.00020 DLA
Titanium, total	7440-32-6		0.00030	mg/L	<0.00090 DLM	<0.00030	<0.00030	<0.00060 DLA	<0.00180 DLM
Tungsten, total	7440-33-7		0.00010	mg/L	<0.00020 DLA	<0.00010	<0.00010	<0.00020 DLA	0.00044
Uranium, total	7440-61-1		0.000010	mg/L	0.0113	0.00275	0.00290	0.000730	0.0118
Vanadium, total	7440-62-2		0.00050	mg/L	<0.00100 DLA	<0.00050	<0.00050	<0.00100 DLA	0.00136
Zinc, total	7440-66-6		0.0030	mg/L	<0.0060 DLA	<0.0030	<0.0030	<0.0060 DLA	<0.0060 DLA
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00040 DLA	<0.00020	<0.00020	<0.00040 DLA	<0.00320 DLM
Dissolved Metals									
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	364	103	103	130	323
Magnesium, dissolved	7439-95-4		0.0050	mg/L	37.5	10.4	10.6	16.4	95.7
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	14.6	1.72	1.80	4.50	26.3
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	45.2	3.35	3.51	15.6	120
Dissolved metals filtration location		EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [BTEXS+MTBE]									
Benzene	71-43-2	E611A/CG	0.50	μg/L		<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	E611A/CG	0.50	μg/L		<0.50	<0.50	1.78	<0.50
Toluene	108-88-3	E611A/CG	0.50	μg/L		<0.50	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1	E611A/CG	0.50	μg/L		<0.50	<0.50	1.79	<0.50
Xylene, o-	95-47-6	E611A/CG	0.50	μg/L		<0.50	<0.50	<0.50	<0.50
Xylenes, total	1330-20-7	E611A/CG	0.75	μg/L		<0.75	<0.75	1.79	<0.75
BTEX, total		E611A/CG	1.2	μg/L		<1.2	<1.2	3.6	<1.2
Hydrocarbons									
F1 (C6-C10)		E581.F1/CG	100	μg/L		<100	<100	<100	<100
F1-BTEX		EC580/CG	100	μg/L		<100	<100	<100	<100
F2 (C10-C16)		E601/CG	100	μg/L		<100	<100	1190	<100
F3 (C16-C34)		E601/CG	250	μg/L		<250	<250	<250	<250
F4 (C34-C50)		E601/CG	250	μg/L		<250	<250	<250	<250
Hydrocarbons, total (C6-C50)		EC581/CG	400	μg/L		<400	<400	1190	<400
1 7	.,,_		ı	. 5					

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					3-005	3-006	3-019	3-004	3-003
			Client samp	ling date / time	20-Aug-2024 10:00	20-Aug-2024 10:50	20-Aug-2024 00:00	20-Aug-2024 11:40	20-Aug-2024 12:15
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401240-001	YL2401240-002	YL2401240-003	YL2401240-004	YL2401240-005
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%		91.0	94.3	96.2	92.3
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%		91.3	96.3	95.0	88.6
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%		79.5	77.0	84.0	80.2
Difluorobenzene, 1,4-	540-36-3 E	611A/CG	1.0	%		93.1	92.2	92.6	92.4

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

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

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					3-002	3-001	3-010	3-011	3-012
			Client samp	ling date / time	20-Aug-2024 13:00	20-Aug-2024 13:30	20-Aug-2024 11:00	20-Aug-2024 11:30	20-Aug-2024 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401240-006	YL2401240-007	YL2401240-008	YL2401240-009	YL2401240-010
					Result	Result	Result	Result	Result
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	469	324	41.5	41.0	41.1
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	469	324	41.5	41.0	41.1
Conductivity		E100/VA	2.0	μS/cm	5810	2740	101	103	99.0
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	1280	1650	41.5	41.8	42.3
pH		E108/VA	0.10	pH units	8.08	7.81	7.92	7.90	7.79
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	4500	2350	69.0	63.0	62.3
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	3.8	54.8	<1.0	<1.0	<1.0
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	1320	1590	42.9	44.5	45.4
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.739	1.06	<0.0050	<0.0050	<0.0050
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	191	10.5	1.44	1.44	1.44
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	<0.250 DLDS	<0.100 DLDS	<0.0050	<0.0050	<0.0050
		A							
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L	<1.11	<0.443	<0.022	<0.022	<0.022
Nitrate + Nitrite (as N)		VA	0.0050	mg/L	<0.255	<0.102	<0.0051	<0.0051	<0.0051
Nitiate + Nititle (as N)		EC235.N+N/V A	0.0000	IIIg/L	10.255	VO. 102	40.0031	40.0031	VO.0001
Nitrite (as N)	14797-65-0	E235.NO2-L/V	0.0010	mg/L	<0.0500 DLDS	<0.0200 DLDS	<0.0010	<0.0010	<0.0010
		A							
Nitrite (as NO2)	14797-65-0	EC235.NO2A/	0.0030	mg/L	<0.164	<0.0656	<0.0033	<0.0033	<0.0033
Phosphate, ortho-, dissolved (as P)	14265-44-2	VA F378-U/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total		E372-U/VA	0.0010	mg/L	0.0302	0.0206	0.0046	0.0050	0.0050
Sulfate (as SO4)		E235.SO4/VA	0.30	_	3030	1510	7.88	7.90	7.90
, ,	14808-79-8		0.50	mg/L	3030	1310	7.00	7.50	7.50
Organic / Inorganic Carbon Carbon, total organic [TOC]		E355-L/VA	0.50	ma/l	10.2	4.15	3.22	3.17	3.09
		L000-L/VA	0.50	mg/L	10.2	4.10	3.22	3.17	3.09
Total Metals	7100.00 -	E420A/A	0.0020	m e: //	0.0256	0.407	0.0447	0.0400	0.0400
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0256	0.107	0.0117	0.0108	0.0122

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Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				3-002	3-001	3-010	3-011	3-012
		Client samp	ling date / time	20-Aug-2024 13:00	20-Aug-2024 13:30	20-Aug-2024 11:00	20-Aug-2024 11:30	20-Aug-2024 12:00
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401240-006	YL2401240-007	YL2401240-008	YL2401240-009	YL2401240-010
				Result	Result	Result	Result	Result
Total Metals								
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	0.00082	<0.00020 DLA	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.0207	0.0139	0.00036	0.00033	0.00033
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0156	0.0226	0.00490	0.00458	0.00466
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000250 DLA	<0.000100 DLA	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8 E420/VA	0.010	mg/L	0.146	0.150	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	0.0121	0.000228	<0.0000050	<0.0000050	<0.0000050
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	378	449	11.3	11.7	11.7
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000050 DLA	0.000028	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00250 DLA	<0.00100 DLA	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.675	0.0135	<0.00010	<0.00010	<0.00010
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	<0.00250 DLA	<0.00100 DLA	0.00061	0.00061	0.00059
Iron, total	7439-89-6 E420/VA	0.010	mg/L	1.35	46.4	<0.010	<0.010	<0.010
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	0.000442	0.000489	<0.000050	<0.000050	<0.000050
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0361	0.0272	0.0019	0.0019	0.0019
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	81.8	129	3.23	3.06	3.18
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	10.9	1.08	0.00270	0.00275	0.00266
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.00444	0.000785	0.000078	0.000079	0.000085
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	1.63	0.00557	<0.00050	<0.00050	<0.00050
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.250 DLA	<0.100 DLA	<0.050	<0.050	<0.050
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	73.2	52.5	1.70	1.59	1.66
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00272	0.00448	0.00220	0.00213	0.00221
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.00106	0.000234	<0.000050	<0.000050	0.000051
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	6.93	12.8	0.18	0.16	0.16
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000050 DLA	<0.000020 DLA	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	1000	60.7	2.60	2.48	2.53
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	3.65	4.82	0.0454	0.0459	0.0451
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	1060	565	2.74	2.74	2.78
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00100 DLA	0.00071	<0.00020	<0.00020	<0.00020
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Analysis CAS Number Methodit.ab LOR Unit Y12401240-097 Y124012400-097 Y12401240-097 Y124012400-097 Y124012400-097 Y124012400-097 Y124012400-097 Y124012400-097 Y124012400-097	Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
Aralyte CAS Number Methodicals LOR Unit Y1.2401240-006 Y1.2401240-006 Y1.2401240-008 Y1.2401240-009 Y1.2	(Matrix: Water)					3-002	3-001	3-010	3-011	3-012
						13:00	13:30	11:00	11:30	
Total Metals Tada	Analyte	CAS Number	Method/Lab	LOR	Unit					YL2401240-010
Tabilum, total 7440-28-0 E420VA 0.00010 mg/L 0.000053 <0.00020 ^{6.6.*} <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010	T 4 1 1 4 1 5					Result	Result	Result	Result	Result
Thorium, total TA40-29-1 E420V/A 0.00010 mg/L 40.00050 Δ 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.00010 40.		7440-28-0 F42	20/VA	0.000010	ma/l	0.000053	<0.000020 DLA	<0.000010	<0.000010	<0.000010
Tin, total 7440-31-5 F420/VA 0.00010 mg/L <0.00050 %	· ·				-					
Titanium, total 7440-32-8 (240/VA) 0.00030 mg/L	·									
Tungsten, total					-					
Uranium, total 7440-61-1 E420/VA 0.00010 mg/L 0.00910 0.000836 0.000106 0.000100 0.000105 Vanadium, total 7440-62-2 E420/VA 0.00030 mg/L -0.00250 °°A -0.00100 °°A -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050 -0.00050	· ·				-					
Vanadium, total 7440-62-2 E420 E420\texts{										
Zinc, total 7440-66-6 E420/VA 0.0030 mg/L 5.23 0.0385 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.0030 <0.00					-					
Zirconium, total 7440-67-7 E420/VA 0.00020 mg/L <0.00100 8LA <0.00040 0AA <0.00020 <0.00020 <0.00020 <0.00020	, ,									
Dissolved Metals Calcium, dissolved 7440-70-2 E421/VA 0.050 mg/L 381 415 11.9 12.2 12.2 12.2 Magnesium, dissolved 7439-954 E421/VA 0.050 mg/L 88.7 135 3.20 3.40 3.62 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.60 3.62 3.62 3.60 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.62	·				-					
Calcium, dissolved	·	7110 07 7								
Potassium, dissolved 7440-09-7 E421/VA 0.050 mg/L 73.8 51.8 1.50 1.55 1.54 Sodium, dissolved 7440-23-5 E421/VA 0.050 mg/L 1000 62.8 2.50 2.51 2.67 Dissolved metals filtration location EP421/VA Field		7440-70-2 E42	21/VA	0.050	mg/L	381	415	11.9	12.2	12.2
Potassium, dissolved 7440-09-7 E421/VA 0.050 mg/L 73.8 51.8 1.50 1.55 1.54 Sodium, dissolved 7440-23-5 E421/VA 0.050 mg/L 1000 62.8 2.50 2.51 2.67 Dissolved metals filtration location EP421/VA Field Field Field Field Field Field Volatile Organic Compounds [BTEXS+MTBE] Benzene 71-43-2 E611A/CG 0.50 μg/L <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 Ethylbenzene 100-41-4 E611A/CG 0.50 μg/L <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 Toluene 108-88-3 E611A/CG 0.50 μg/L <0.50 2.45 <0.50 <0.50 <0.50 <0.50 Xylene, m+p- 179601-23-1 E611A/CG 0.50 μg/L <0.50 μg/L <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 Xylene, o- 95-47-6 E611A/CG 0.50 μg/L <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 E1EX, total 1330-20-7 E611A/CG 0.75 μg/L <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75	Magnesium, dissolved	7439-95-4 E42	21/VA	0.0050	mg/L	88.7	135	3.20	3.40	3.62
Sodium, dissolved 7440-23-5 E421/VA 0.050 mg/L 1000 62.8 2.50 2.51 2.67 Dissolved metals filtration location EP421/VA Field Field Field Field Field Field Volatile Organic Compounds [BTEXS+MTBE] Benzene 71-43-2 E611A/CG 0.50 μg/L <0.50 3.05 <0.50 <0.50 <0.50 Ethylbenzene 100-41-4 E611A/CG 0.50 μg/L <0.50 <0.50 <0.50 <0.50 <0.50 Tolluene 108-88-3 E611A/CG 0.50 μg/L <0.50 2.45 <0.50 <0.50 <0.50 Xylene, m+p- 179601-23-1 E611A/CG 0.50 μg/L <0.50 0.61 <0.50 <0.50 <0.50 Xylene, o- 95-47-6 E611A/CG 0.50 μg/L <0.50 <0.50 <0.50 <0.50 Xylene, stotal 1330-20-7 E611A/CG 0.75 μg/L <0.75 <0.75 <0.75 <0.75 <0.75 BTEX, total E611A/CG 1.2 μg/L <1.2 6.1 <1.2 <1.2 <1.2 Hydrocarbons F1 (G6-C10) E581.F1/CG 100 μg/L <100 <100 <100 <100 <100 F2 (C10-C16) E601/CG 250 μg/L <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250 <250	Potassium, dissolved			0.050	mg/L	73.8	51.8	1.50	1.55	1.54
Dissolved metals filtration location	Sodium, dissolved			0.050	mg/L	1000	62.8	2.50	2.51	2.67
Benzene	Dissolved metals filtration location	EP4	421/VA	-	-	Field	Field	Field	Field	Field
Ethylbenzene 100-41-4 E611A/CG 0.50 μg/L <0.50	Volatile Organic Compounds [BTEXS+MTBE]									
Toluene 108-88-3 E611A/CG 0.50 μg/L <0.50 2.45 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50		71-43-2 E61	11A/CG	0.50	μg/L	<0.50	3.05	<0.50	<0.50	<0.50
Xylene, m+p- 179601-23-1 E611A/CG 0.50 μg/L <0.50 0.61 <0.50 <0.50 <0.50 <0.50 <0.50 Xylene, o- 95-47-6 E611A/CG 0.50 μg/L <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50	Ethylbenzene	100-41-4 E61	11A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, o- 95-47-6 E611A/CG 0.50 μg/L <0.50	Toluene	108-88-3 E61	11A/CG	0.50	μg/L	<0.50	2.45	<0.50	<0.50	<0.50
Xylenes, total 1330-20-7 E611A/CG 0.75 μg/L <0.75	Xylene, m+p-	179601-23-1 E61	11A/CG	0.50	μg/L	<0.50	0.61	<0.50	<0.50	<0.50
BTEX, total E611A/CG 1.2 μg/L <1.2 6.1	Xylene, o-	95-47-6 E61	11A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Hydrocarbons F1 (C6-C10) E581.F1/CG 100 μg/L <100	Xylenes, total	1330-20-7 E61	11A/CG	0.75	μg/L	<0.75	<0.75	<0.75	<0.75	<0.75
F1 (C6-C10) E581.F1/CG 100 μg/L <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100 <100	BTEX, total	E61	11A/CG	1.2	μg/L	<1.2	6.1	<1.2	<1.2	<1.2
F1-BTEX EC580/CG 100 μg/L <100	Hydrocarbons									
F2 (C10-C16) E601/CG 100 μg/L <100 140 <100 <100 <100 F3 (C16-C34) E601/CG 250 μg/L <250 <250 <250 <250 <250 <250 F4 (C34-C50) E601/CG 250 μg/L <250 <250 <250 <250 <250	F1 (C6-C10)	E58	31.F1/CG	100	μg/L	<100	<100	<100	<100	<100
F3 (C16-C34) E601/CG 250 μg/L <250 <250 <250 <250 <250 <250 <250 <250	F1-BTEX	EC5	580/CG	100	μg/L	<100	<100	<100	<100	<100
F4 (C34-C50) Ε601/CG 250 μg/L <250 <250 <250 <250 <250	F2 (C10-C16)	E60)1/CG	100	μg/L	<100	140	<100	<100	<100
	F3 (C16-C34)	E60)1/CG	250	μg/L			<250	<250	<250
	F4 (C34-C50)			250	μg/L	<250	<250	<250	<250	<250
Hydrocarbons, total (C6-C50) n/a EC581/CG 400 μg/L <400	Hydrocarbons, total (C6-C50)	n/a EC5	581/CG	400	μg/L	<400	<400	<400	<400	<400

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					3-002	3-001	3-010	3-011	3-012
			Client samp	ling date / time	20-Aug-2024 13:00	20-Aug-2024 13:30	20-Aug-2024 11:00	20-Aug-2024 11:30	20-Aug-2024 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401240-006	YL2401240-007	YL2401240-008	YL2401240-009	YL2401240-010
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	92.0	95.5	92.2	96.8	94.7
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	86.2	85.5	97.2	96.8	93.5
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	75.0	80.1	81.3	81.2	79.8
Difluorobenzene, 1,4-	540-36-3 E	611A/CG	1.0	%	91.1	91.9	90.6	95.0	91.0

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

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

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000		 	
(Matrix: Water)				·	3-013			
			Client samp	ling date / time	20-Aug-2024 12:40		 	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401240-011		 	
					Result		 	
Physical Tests	le le	-00014	4.0		40.0			
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	40.6		 	
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0		 	
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0		 	
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0		 	
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	40.6		 	
Conductivity		E100/VA	2.0	μS/cm	103		 	
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	41.2		 	
рН	E	E108/VA	0.10	pH units	7.79		 	
Solids, total dissolved [TDS]	E	E162-L/VA	3.0	mg/L	67.3		 	
Solids, total suspended [TSS]	E	E160-L/VA	1.0	mg/L	<1.0		 	
Hardness (as CaCO3), dissolved	E	EC100/VA	0.50	mg/L	45.0		 	
Anions and Nutrients								
Ammonia, total (as N)	7664-41-7 ^E	E298/VA	0.0050	mg/L	<0.0050		 	
Chloride	16887-00-6 E	E235.CI/VA	0.50	mg/L	1.44		 	
Nitrate (as N)	14797-55-8 E	E235.NO3-L/V	0.0050	mg/L	<0.0050		 	
Nitrate (as NO3)		EC235.NO3A/ /A	0.010	mg/L	<0.022		 	
Nitrate + Nitrite (as N)	E	EC235.N+N/V A	0.0050	mg/L	<0.0051		 	
Nitrite (as N)	14797-65-0 E	E235.NO2-L/V	0.0010	mg/L	<0.0010		 	
Nitrite (as NO2)	14797-65-0 E	EC235.NO2A/ /A	0.0030	mg/L	<0.0033		 	
Phosphate, ortho-, dissolved (as P)	14265-44-2 E	E378-U/VA	0.0010	mg/L	<0.0010		 	
Phosphorus, total	7723-14-0 E		0.0020	mg/L	0.0043		 	
Sulfate (as SO4)		E235.SO4/VA	0.30	mg/L	7.90		 	
Organic / Inorganic Carbon								
Carbon, total organic [TOC]	E	E355-L/VA	0.50	mg/L	3.08		 	
Total Metals						111111		
Aluminum, total	7429-90-5 E	E420/VA	0.0030	mg/L	0.0112		 	

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	 		
(Matrix: Water)				3-013			
		Client samp	ling date / time	20-Aug-2024 12:40	 		
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401240-011	 		
				Result	 		
Total Metals							
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	<0.00010	 		
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00032	 		
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.00440	 		
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	 		
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	 		
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010	 		
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.0000050	 		
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	11.5	 		
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010	 		
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	 		
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	<0.00010	 		
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00062	 		
Iron, total	7439-89-6 E420/VA	0.010	mg/L	<0.010	 		
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	 		
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0019	 		
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	3.03	 		
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.00276	 		
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	 		
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000089	 		
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	<0.00050	 		
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	 		
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.58	 		
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00204	 		
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050	 		
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.17	 		
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	 		
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	2.47	 		
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.0456	 		
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	2.91	 		
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020	 		
	10-10-10-10-10-10-10-10-10-10-10-10-10-1	1	∌, ⊏			I	

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Analytical Nesults			_		 		
Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	 		
(Matrix: Water)				3-013	 		
		Client samp	ling date / time	20-Aug-2024 12:40	 		
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401240-011	 		
				Result	 		
Total Metals							
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000010	 		
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00010	 		
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00010	 		
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	<0.00030	 		
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010	 		
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.000102	 		
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050	 		
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	<0.0030	 		
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020	 		
Dissolved Metals							
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	12.6	 		
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	3.30	 		
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	1.50	 		
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	2.57	 		
Dissolved metals filtration location	EP421/VA	-	-	Field	 		
Volatile Organic Compounds [BTEXS+MTBE]							
Benzene	71-43-2 E611A/CG	0.50	μg/L	<0.50	 		
Ethylbenzene	100-41-4 E611A/CG	0.50	μg/L	<0.50	 		
Toluene	108-88-3 E611A/CG	0.50	μg/L	<0.50	 		
Xylene, m+p-	179601-23-1 E611A/CG	0.50	μg/L	<0.50	 		
Xylene, o-	95-47-6 E611A/CG	0.50	μg/L	<0.50	 		
Xylenes, total	1330-20-7 E611A/CG	0.75	μg/L	<0.75	 		
BTEX, total	E611A/CG	1.2	μg/L	<1.2	 		
Hydrocarbons							
F1 (C6-C10)	E581.F1/CG	100	μg/L	<100	 		
F1-BTEX	EC580/CG	100	μg/L	<100	 		
F2 (C10-C16)	E601/CG	100	μg/L	<100	 		
F3 (C16-C34)	E601/CG	250	μg/L	<250	 		
F4 (C34-C50)	E601/CG	250	μg/L	<250	 		
Hydrocarbons, total (C6-C50)	n/a EC581/CG	400	μg/L	<400	 		
1 -		1				I	ı I

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	 	
(Matrix: Water)					3-013		
			Client samp	ling date / time	20-Aug-2024 12:40	 	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401240-011	 	
					Result	 	
Hydrocarbons Surrogates							
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	93.6	 	
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	94.6	 	
Volatile Organic Compounds Surrogates							
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	75.2	 	
Difluorobenzene, 1,4-	540-36-3 E	611A/CG	1.0	%	91.7	 	

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : **YL2401240** Page : 1 of 31

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address :4910 53 Street Address :314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 : 1 867 445 7143

 Project
 : Gordon Lake - Phase 1 LTMP - Water
 Date Samples Received
 : 21-Aug-2024 12:51

PO : ---- Issue Date : 30-Aug-2024 18:07

Sampler : Magda Celejewski, Tarek Ghadieh

:11

Site ·

Quote number :YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received :11

Yellowknife NT Canada X1A 2P4

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

C-O-C number

No. of samples analysed

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

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.

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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					Ev	aluation: × =	Holding time excee	edance ; •	= Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation		Analysis		is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-004	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-005	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-012	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-013	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-019	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-001	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	28-Aug-2024	28 days	8 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-002	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	28-Aug-2024	28 days	8 days	✓
				days						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						raidation. • -	× = Holding time exceedance; ✓ = Within Holding Ti				
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation		Analysis				
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval	
			Date	Rec	Actual			Rec	Actual		
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid)											
GLG-2024-00003-003	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	28-Aug-2024	28 days	8 days	✓	
				days							
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid)											
GLG-2024-00003-006	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	28-Aug-2024	28 days	8 days	✓	
				days							
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid)											
GLG-2024-00003-010	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	28-Aug-2024	28 days	8 days	✓	
				days							
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid)											
GLG-2024-00003-011	E298	20-Aug-2024	27-Aug-2024	28	7 days	✓	28-Aug-2024	28 days	8 days	✓	
				days				-	-		
Anions and Nutrients : Chloride in Water by IC											
HDPE											
GLG-2024-00003-001	E235.CI	20-Aug-2024	27-Aug-2024	28	6 days	✓	27-Aug-2024	28 days	7 days	✓	
				days				-	-		
Anions and Nutrients : Chloride in Water by IC											
HDPE											
GLG-2024-00003-002	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓	
				days				-	-		
Anions and Nutrients : Chloride in Water by IC											
HDPE											
GLG-2024-00003-003	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓	
				days							
Anions and Nutrients : Chloride in Water by IC											
HDPE											
GLG-2024-00003-004	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓	
			J	days					,		
Anions and Nutrients : Chloride in Water by IC											
	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓	
		Ĭ	3		′				,		
Anions and Nutrients : Chloride in Water by IC HDPE GLG-2024-00003-006	E235.Cl	20-Aug-2024	27-Aug-2024	28 days	7 days	4	27-Aug-2024	28 days	7 days	✓	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water Evaluation: ▼ = Holding time exceedance : ✓ = Within Holding Time

Matrix: Water					Holding time exceedance ; ✓ = Within Holding Ti					
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00003-010	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC									,	
HDPE										
GLG-2024-00003-011	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC									'	
HDPE										
GLG-2024-00003-012	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00003-013	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00003-019	E235.CI	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Lo	evel 0.001 mg/L)									
HDPE										
GLG-2024-00003-001	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	×	28-Aug-2024	3 days	7 days	x
						EHT				EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Lo	evel 0.001 mg/L)									
HDPE										
GLG-2024-00003-002	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	×	28-Aug-2024	3 days	7 days	*
						EHT				EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Lo	evel 0.001 mg/L)								'	
HDPE										
GLG-2024-00003-003	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	*	28-Aug-2024	3 days	7 days	sc .
						EHT				EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Lo	evel 0.001 mg/L)									
HDPE										
GLG-2024-00003-004	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	×	28-Aug-2024	3 days	7 days	*
	1	1		1	1	EHT		1	1	EHT

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr			Floiding time excel	Analys		<u> </u>
Container / Client Sample ID(s)		' "	Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00003-006	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	28-Aug-2024	3 days	7 days	x EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00003-010	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	x EHT	28-Aug-2024	3 days	7 days	# EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00003-011	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	28-Aug-2024	3 days	7 days	x EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00003-012	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	28-Aug-2024	3 days	7 days	# EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00003-013	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	28-Aug-2024	3 days	7 days	# EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00003-019	E378-U	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	28-Aug-2024	3 days	7 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-001	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	# EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-002	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	≭ EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-003	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	* EHT

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water	Matteria	Orana tinan Data	- Fv	traction / Dr		valuation. •• – i	Holding time exceedance; ✓ = Within Holding Ti				
Analyte Group : Analytical Method	Method	Sampling Date		traction / Pr		- ·	Anatori B (·	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Rec Rec	7 Times Actual	Eval	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE GLG-2024-00003-004	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	± EHT	27-Aug-2024	3 days	6 days	x EHT	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE GLG-2024-00003-006	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	# EHT	27-Aug-2024	3 days	6 days	# EHT	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE GLG-2024-00003-010	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	# EHT	27-Aug-2024	3 days	6 days	x EHT	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE GLG-2024-00003-011	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	x EHT	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE GLG-2024-00003-012	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	* EHT	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE GLG-2024-00003-013	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	x EHT	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE GLG-2024-00003-019	E235.NO3-L	20-Aug-2024	27-Aug-2024	3 days	6 days	# EHT	27-Aug-2024	3 days	6 days	x EHT	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE GLG-2024-00003-001	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	* EHT	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE GLG-2024-00003-002	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	* EHT	

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Client

Stantec Consulting Ltd. Gordon Lake - Phase 1 LTMP - Water Project



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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00003-003	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)									'	
HDPE GLG-2024-00003-004	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	# EHT	27-Aug-2024	3 days	6 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00003-006	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00003-010	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	# EHT	27-Aug-2024	3 days	6 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00003-011	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)					1					
HDPE GLG-2024-00003-012	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00003-013	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	# EHT	27-Aug-2024	3 days	6 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00003-019	E235.NO2-L	20-Aug-2024	27-Aug-2024	3 days	6 days	* EHT	27-Aug-2024	3 days	6 days	x EHT
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00003-001	E235.SO4	20-Aug-2024	27-Aug-2024	28 days	6 days	✓	27-Aug-2024	28 days	7 days	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						raiuation. * -	Holding time exceedance; Within Holding 1:					
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analysis				
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval		
			Date	Rec	Actual			Rec	Actual			
Anions and Nutrients : Sulfate in Water by IC												
HDPE												
GLG-2024-00003-002	E235.SO4	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓		
				days								
Anions and Nutrients : Sulfate in Water by IC												
HDPE												
GLG-2024-00003-003	E235.SO4	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓		
				days								
Anions and Nutrients : Sulfate in Water by IC												
HDPE												
GLG-2024-00003-004	E235.SO4	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓		
				days								
Anions and Nutrients : Sulfate in Water by IC												
HDPE												
GLG-2024-00003-006	E235.SO4	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓		
				days				-	-			
Anions and Nutrients : Sulfate in Water by IC				-								
HDPE												
GLG-2024-00003-010	E235.SO4	20-Aug-2024	27-Aug-2024	28	7 days	√	27-Aug-2024	28 days	7 days	✓		
		Ŭ	J	days			Ĭ	,	,			
Anions and Nutrients : Sulfate in Water by IC				,								
HDPE												
GLG-2024-00003-011	E235.SO4	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 davs	✓		
010 202 1 00000 0 1 1			g	days	, -				, -			
Aniana and Nutrienta - Culfete in Mater by IC				,-								
Anions and Nutrients : Sulfate in Water by IC HDPE							<u> </u>					
GLG-2024-00003-012	E235.SO4	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓		
010 2024 00000 012	2200.001	20 / kg 202 i	27 7 tag 202 1	days	, dayo	,	27 7 (19 202)	20 dayo	, dayo			
				days								
Anions and Nutrients : Sulfate in Water by IC HDPE				1			I					
GLG-2024-00003-013	E235.SO4	20-Aug-2024	27-Aug-2024	28	7 days	√	27-Aug-2024	28 days	7 days	✓		
GLG-2024-00000-013	L200.004	20-Aug-2024	21-Aug-2024		1 days	ľ	21-Aug-2024	20 days	r days	•		
				days								
Anions and Nutrients : Sulfate in Water by IC												
HDPE	E235.SO4	20-Aug-2024	27 Aug 2024		7 dov	√	27 Aug 2024	20 day:-	7 dov-	✓		
GLG-2024-00003-019	E233.3U4	20-Aug-2024	27-Aug-2024	28	7 days	•	27-Aug-2024	28 days	r uays	▼		
				days								

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Client Stantec Consulting Ltd.

Gordon Lake - Phase 1 LTMP - Water Project



Matrix: Water

Matrix: Water					Ev	aluation: × =	Holding time excee	edance ; •	✓ = Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	g Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-001	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	~
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-002	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-003	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	√
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-004	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-005	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-006	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	4
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-010	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-011	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00003-012	E372-U	20-Aug-2024	27-Aug-2024	28 days	7 days	✓	29-Aug-2024	28 days	9 days	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						/aluation. 🔻 –	Holding time exceedance; ▼ = Within Holding I ■				
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analys	sis		
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval	
			Date	Rec	Actual			Rec	Actual		
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid)											
GLG-2024-00003-013	E372-U	20-Aug-2024	27-Aug-2024	28	7 days	✓	29-Aug-2024	28 days	9 days	✓	
				days							
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)											
Amber glass total (sulfuric acid)											
GLG-2024-00003-019	E372-U	20-Aug-2024	27-Aug-2024	28	7 days	✓	29-Aug-2024	28 days	9 days	✓	
				days							
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved)		T T		T T							
GLG-2024-00003-001	E421	20-Aug-2024	28-Aug-2024	180	8 days	✓	30-Aug-2024	180	10 days	✓	
				days				days			
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved)											
GLG-2024-00003-002	E421	20-Aug-2024	28-Aug-2024	180	8 days	✓	30-Aug-2024	180	10 days	✓	
			_	days				days			
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved)											
GLG-2024-00003-003	E421	20-Aug-2024	28-Aug-2024	180	8 days	✓	30-Aug-2024	180	10 days	✓	
			J	days			, and the second	days			
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved)											
GLG-2024-00003-004	E421	20-Aug-2024	28-Aug-2024	180	8 days	1	30-Aug-2024	180	10 days	✓	
			J	days			Ü	days			
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS								1			
HDPE - dissolved (lab preserved)		T T		<u> </u>							
GLG-2024-00003-005	E421	20-Aug-2024	28-Aug-2024	180	8 days	✓	30-Aug-2024	180	10 days	✓	
			3 3	days			J	days			
Disselved Metals : Disselved Metals in Water by CDC ICDMS				aujo							
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS HDPE - dissolved (lab preserved)											
GLG-2024-00003-006	E421	20-Aug-2024	28-Aug-2024	180	8 days	√	30-Aug-2024	180	10 days	✓	
010 2021 00000 000		207109 2021	207.09 202.	days	o days	·	007143 2021	days	. o aayo		
Discribed Matels a Discribed Matels in Waters by ODO JODNO				uays				days			
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS HDPE - dissolved (lab preserved)											
GLG-2024-00003-010	E421	20-Aug-2024	28-Aug-2024	100	8 days	√	30-Aug-2024	100	10 days	✓	
GLG-2024-00003-010	L421	20-Aug-2024	20-Aug-2024	180	o uays	,	30-Aug-2024	180	10 days	•	
				days				days			

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						/alualion. ^ –	Holding time exceedance; ▼ = Within Holding				
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis		
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval	
			Date	Rec	Actual			Rec	Actual		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved)											
GLG-2024-00003-011	E421	20-Aug-2024	28-Aug-2024	180	8 days	✓	30-Aug-2024	180	10 days	✓	
				days				days			
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved)		1		<u> </u>							
GLG-2024-00003-012	E421	20-Aug-2024	28-Aug-2024	180	8 days	✓	30-Aug-2024	180	10 days	✓	
020 202 : 00000 0.12				days	, -			days			
Pi a la l				dayo				dayo			
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS		1					I				
HDPE - dissolved (lab preserved) GLG-2024-00003-013	E421	20-Aug-2024	28-Aug-2024	180	8 days	✓	30-Aug-2024	180	10 days	✓	
GLG-2024-00003-013	L+21	20-Aug-2024	20-Aug-2024		0 days	Ť	30-Aug-2024		10 days	•	
				days				days			
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved)	F404	00.4				,				,	
GLG-2024-00003-019	E421	20-Aug-2024	28-Aug-2024	180	8 days	✓	30-Aug-2024	180	10 days	✓	
				days				days			
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)											
GLG-2024-00003-001	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓	
				days							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)											
GLG-2024-00003-002	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓	
				days							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID								1	I		
Glass vial (sodium bisulfate)		T									
GLG-2024-00003-003	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓	
			3 3	days			. 3 .	,			
Hudracarbana - CCME DHC - E4 by Handanaca CC EID				,5							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID Glass vial (sodium bisulfate)				I			I				
GLG-2024-00003-004	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	√	23-Aug-2024	14 days	3 days	✓	
GLG-2024-00003-004	L301.11	20-Aug-2024	25-Aug-2024		3 days	•	25-Aug-2024	14 days	3 days	•	
				days							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)	E504.54	00.4. 000:					00.4			,	
GLG-2024-00003-006	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓	
				days							

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water

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

Matrix: Water						raidation. • -	on: x = Holding time exceedance ; ✓ = Within Hol				
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	eparation			Analys	sis		
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval	
			Date	Rec	Actual			Rec	Actual		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)											
GLG-2024-00003-010	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓	
				days							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID									· · · · · ·		
Glass vial (sodium bisulfate)											
GLG-2024-00003-011	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓	
				days							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID											
Glass vial (sodium bisulfate)											
GLG-2024-00003-012	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓	
		Ĭ	Ü	days	1		Ĭ		'		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID				,							
Glass vial (sodium bisulfate)							I				
GLG-2024-00003-013	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓	
GEO 2024 00000 010	2001	207149 2021	20 / lag 202 i	days	o dayo		207149 2021	1 i dayo	o dayo		
Hadroneshare COME PHO. E4 had been a CO FID				dayo							
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID Glass vial (sodium bisulfate)				<u> </u>				I	1		
GLG-2024-00003-019	E581.F1	20-Aug-2024	23-Aug-2024	14	3 days	√	23-Aug-2024	14 days	3 days	✓	
GLG-2024-00003-019	2001.11	20-Aug-2024	20-Aug-2024	days	Juays	,	20-Aug-2024	14 days	5 days	•	
				uays							
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00003-001	E601	20-Aug-2024	26-Aug-2024	14	6 days	√	26-Aug-2024	40 days	0 days	✓	
GLG-2024-00003-001	Looi	20-Aug-2024	20-Aug-2024		0 uays	•	20-Aug-2024	40 days	0 days	•	
				days							
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate)	E601	20 Aug 2024	26 Aug 2024		6 days	✓	26 Aug 2024	10 day:-	0 days	✓	
GLG-2024-00003-002	E001	20-Aug-2024	26-Aug-2024	14	6 days	•	26-Aug-2024	40 days	0 days	•	
				days							
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID				1							
Amber glass/Teflon lined cap (sodium bisulfate)	F00.4	00 4 000 1	00 4 000 1		0.1		00 4 000 1	40.4		,	
GLG-2024-00003-003	E601	20-Aug-2024	26-Aug-2024	14	6 days	✓	26-Aug-2024	40 days	0 days	✓	
				days							
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID											
Amber glass/Teflon lined cap (sodium bisulfate)											
GLG-2024-00003-004	E601	20-Aug-2024	26-Aug-2024	14	6 days	✓	26-Aug-2024	40 days	0 days	✓	
	1			days							

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Amber glass total (sulfuric acid) GLG-2024-00003-001

Amber glass total (sulfuric acid)

Amber glass total (sulfuric acid)

GLG-2024-00003-002

GLG-2024-00003-003

Matrix: Water

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water

Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)

Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)

Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)



Evaluation: **x** = Holding time exceedance; ✓ = Within Holding Time

Extraction / Preparation Analyte Group: Analytical Method Method Sampling Date Analysis Container / Client Sample ID(s) **Holding Times** Preparation Holding Times Eval Analysis Date Eval Rec Actual Rec Actual Date Hydrocarbons: CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) E601 20-Aug-2024 1 ✓ GLG-2024-00003-006 26-Aug-2024 6 days 26-Aug-2024 40 days 0 days 14 days Hydrocarbons: CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00003-010 E601 20-Aug-2024 26-Aug-2024 6 days 1 26-Aug-2024 40 days 0 days ✓ 14 days Hydrocarbons : CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) E601 20-Aug-2024 26-Aug-2024 6 days 1 26-Aug-2024 40 days 0 days 1 GLG-2024-00003-011 14 days Hydrocarbons: CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) 1 GLG-2024-00003-012 E601 20-Aug-2024 26-Aug-2024 6 days 26-Aug-2024 40 days 0 days 1 14 days Hydrocarbons : CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) E601 26-Aug-2024 1 ✓ GLG-2024-00003-013 20-Aug-2024 6 days 26-Aug-2024 40 days 0 days 14 days Hydrocarbons: CCME PHCs - F2-F4 by GC-FID Amber glass/Teflon lined cap (sodium bisulfate) E601 1 GLG-2024-00003-019 20-Aug-2024 26-Aug-2024 14 6 days 26-Aug-2024 40 days 0 days 1

20-Aug-2024

20-Aug-2024

20-Aug-2024

E355-L

E355-L

E355-L

days

28 days

28

days

28 days 7 days

7 days

7 days

1

1

1

27-Aug-2024

27-Aug-2024

27-Aug-2024

27-Aug-2024

27-Aug-2024

27-Aug-2024	28 days	7 days	✓
		alsglob	oal.com

28 days 7 days

28 days

7 days

✓

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Client : Stantec Consulting Ltd.

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

Matrix: Water					E\	/aluation. ^ –	Holding time exce	euance, •	– vvitriili	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00003-004	E355-L	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00003-005	E355-L	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00003-006	E355-L	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00003-010	E355-L	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days					-	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)				<u> </u>						
GLG-2024-00003-011	E355-L	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days					-	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00003-012	E355-L	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00003-013	E355-L	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
		Ŭ	Ŭ	days			Ĭ			
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)			, ,						
Amber glass total (sulfuric acid)	l (EOW ECVEI)									
GLG-2024-00003-019	E355-L	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
			3 -	days			3 '		,	
Dhysical Tests : Alkalinity Species by Titystian										
Physical Tests : Alkalinity Species by Titration HDPE										
GLG-2024-00003-001	E290	20-Aug-2024	27-Aug-2024	14	6 days	✓	27-Aug-2024	14 days	7 days	✓
323 2021 00000 001		207.09 2021	_, , lug 2024	days	Jaayo	, i		. r days	. 44,5	•
				uays						

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Client : Stantec Consulting Ltd.

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

Matrix: Water						/aluation. * -	Holding time exce			Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation	1		Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-002	E290	20-Aug-2024	27-Aug-2024	14	7 days	✓	27-Aug-2024	14 days	7 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-003	E290	20-Aug-2024	27-Aug-2024	14	7 days	✓	27-Aug-2024	14 days	7 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-004	E290	20-Aug-2024	27-Aug-2024	14	7 days	✓	27-Aug-2024	14 days	7 days	✓
				days			, and the second		·	
Physical Tests : Alkalinity Species by Titration				,						
HDPE							1			
GLG-2024-00003-006	E290	20-Aug-2024	27-Aug-2024	14	7 days	✓	27-Aug-2024	14 days	7 days	✓
GEG 2024 00000 000		20 / 10g 202 1	27 7 tag 202 t	days	, dayo	·	27 7 tag 202 t	1 1 days	, dayo	
				uays						
Physical Tests : Alkalinity Species by Titration				T	<u> </u>					
HDPE GLG-2024-00003-010	E290	20-Aug-2024	27-Aug-2024	4.4	7 days	✓	27-Aug-2024	14 days	7 daya	✓
GLG-2024-00003-010	E290	20-Aug-2024	27-Aug-2024	14	7 uays	•	21-Aug-2024	14 uays	1 uays	•
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE	F000	00 4 0004	07.4 000.4				07.4 000.4		- .	,
GLG-2024-00003-011	E290	20-Aug-2024	27-Aug-2024	14	7 days	✓	27-Aug-2024	14 days	/ days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-012	E290	20-Aug-2024	27-Aug-2024	14	7 days	✓	27-Aug-2024	14 days	7 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-013	E290	20-Aug-2024	27-Aug-2024	14	7 days	✓	27-Aug-2024	14 days	7 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-019	E290	20-Aug-2024	27-Aug-2024	14	7 days	✓	27-Aug-2024	14 days	7 days	✓
			_	days			_		Ī	

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Client : Stantec Consulting Ltd.

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

Matrix: Water						/aluation. ^ =	Holding time exce			Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date	Holding		Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-001	E100	20-Aug-2024	27-Aug-2024	28	6 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-002	E100	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-003	E100	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
		Ŭ	Ü	days			Ü	,	,	
Physical Tests : Conductivity in Water										
HDPE								I		
GLG-2024-00003-004	E100	20-Aug-2024	27-Aug-2024	28	7 days	1	27-Aug-2024	28 days	7 days	✓
GLG-2024-00003-004	2100	20-7 tag-202+	21-Aug-2024	days	7 days	Ť	21-Aug-2024	20 days	r days	•
				uays						
Physical Tests : Conductivity in Water						ı				
HDPE	F400	20 4 2024	07 4 0004		7 -1	✓	07 4 0004	00 4	7	✓
GLG-2024-00003-006	E100	20-Aug-2024	27-Aug-2024	28	7 days	•	27-Aug-2024	28 days	7 days	•
				days						
Physical Tests : Conductivity in Water										
HDPE						_				
GLG-2024-00003-010	E100	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-011	E100	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-012	E100	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water				1						
HDPE										
GLG-2024-00003-013	E100	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓
		Ĭ	3	days	,-		j	- /-	,-	
				aayo						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water Evaluation: × = Holding time exceedance: √ = Within Holding Time

Matrix: Water							tion: × = Holding time exceedance ; ✓ = Within Hole				
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analys	sis		
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval	
			Date	Rec	Actual			Rec	Actual		
Physical Tests : Conductivity in Water											
HDPE											
GLG-2024-00003-019	E100	20-Aug-2024	27-Aug-2024	28	7 days	✓	27-Aug-2024	28 days	7 days	✓	
				days							
Physical Tests : pH by Meter											
HDPE											
GLG-2024-00003-001	E108	20-Aug-2024	27-Aug-2024	0.25	155 hrs	se .	27-Aug-2024	0.25	168 hrs	x	
				hrs		EHTR-FM		hrs		EHTR-FM	
Physical Tests : pH by Meter									1		
HDPE											
GLG-2024-00003-002	E108	20-Aug-2024	27-Aug-2024	0.25	156 hrs	3c	27-Aug-2024	0.25	169 hrs	*	
			Ü	hrs		EHTR-FM	Ŭ	hrs		EHTR-FM	
Physical Tests : pH by Meter											
HDPE				<u> </u>				T			
GLG-2024-00003-013	E108	20-Aug-2024	27-Aug-2024	0.25	156 hrs	×	27-Aug-2024	0.25	169 hrs	×	
GLG-2024-00005-013	2100	20-7 (dg-202-	21-Aug-2024	hrs	100 1113	EHTR-FM	21-Aug-2024	0.25 hrs	1031113	EHTR-FM	
				1115		LITTICIW		1115		LITTIC-I WI	
Physical Tests : pH by Meter		<u> </u>		T	T				T		
HDPE	E108	20-Aug-2024	27-Aug-2024	0.05	156 hrs	*	27-Aug-2024	0.05	170 hrs	*	
GLG-2024-00003-003	E100	20-Aug-2024	27-Aug-2024	0.25	156 1118	EHTR-FM	27-Aug-2024	0.25	170 1118	EHTR-FM	
				hrs		ENTR-FIVE		hrs		EUIK-LIM	
Physical Tests : pH by Meter									1		
HDPE	F400										
GLG-2024-00003-004	E108	20-Aug-2024	27-Aug-2024	0.25	157 hrs	*	27-Aug-2024	0.25	170 hrs	*	
				hrs		EHTR-FM		hrs		EHTR-FM	
Physical Tests : pH by Meter											
HDPE											
GLG-2024-00003-011	E108	20-Aug-2024	27-Aug-2024	0.25	157 hrs	*	27-Aug-2024	0.25	170 hrs	×	
				hrs		EHTR-FM		hrs		EHTR-FM	
Physical Tests : pH by Meter											
HDPE											
GLG-2024-00003-012	E108	20-Aug-2024	27-Aug-2024	0.25	157 hrs	se	27-Aug-2024	0.25	170 hrs	*	
				hrs		EHTR-FM		hrs		EHTR-FM	
Physical Tests : pH by Meter				1					1		
HDPE				T							
GLG-2024-00003-006	E108	20-Aug-2024	27-Aug-2024	0.25	158 hrs	×	27-Aug-2024	0.25	171 hrs	×	
			J	hrs		EHTR-FM]	hrs		EHTR-FM	
	I										

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water					E\	/aluation. 🔻 –	Holding time excee	edance, v	– vvitriiri	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / P	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00003-010	E108	20-Aug-2024	27-Aug-2024	0.25	158 hrs	×	27-Aug-2024	0.25	171 hrs	3¢
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00003-019	E108	20-Aug-2024	27-Aug-2024	0.25	159 hrs	*	27-Aug-2024	0.25	172 hrs	*
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-001	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-002	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-003	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-004	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-006	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-010	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-011	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
GLG-2024-00003-011	E102-L	20-Aug-2024					27-Aug-2024	r days	r days	

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Client : Stantec Consulting Ltd.

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

Matrix: Water						/aiuation. 🔻 –	Holding time excee			Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys		
Container / Client Sample ID(s)			Preparation	Holding	Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-012	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00003-013	E162-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
020 2021 00000 010		207109 2021					2. 7.09 202.	. aayo	. aayo	
Physical Tests : TDS by Gravimetry (Low Level)				I	l					
HDPE	E162-L	20 4 2024					07 4 0004	7 -1	7 -1	√
GLG-2024-00003-019	E102-L	20-Aug-2024					27-Aug-2024	7 days	7 days	•
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-001	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-002	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
		-					_			
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-003	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
010-2024-00000-000	2100 2	207149 2021					21-7 lag-202-	1 days	1 days	·
Physical Tests : TSS by Gravimetry (Low Level)				1	ı					
HDPE [TSS-WB]										,
GLG-2024-00003-004	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-006	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-010	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	√
223 2321 00000 010								Lays	,0	

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Client : Stantec Consulting Ltd.



Matrix: Water					Ev	aluation: 🗴 =	Holding time excee	edance ; 🛚	= Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-011	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-012	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										,
GLG-2024-00003-013	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]	F400 I	00.4000.4					07.4 000.4		- .	
GLG-2024-00003-019	E160-L	20-Aug-2024					27-Aug-2024	7 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved)	E508	20 4 2024	20 4 2024	0 5	404 5	*	00 4 0004	0	184 hrs	*
GLG-2024-00003-005	E508	20-Aug-2024	28-Aug-2024	0 hrs	184 hrs	UCP	28-Aug-2024	0 hrs	184 nrs	UCP
						UCP				UCP
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)	E508	20-Aug-2024	28-Aug-2024	00	8 days	✓	28-Aug-2024	28 days	8 days	✓
GLG-2024-00003-001	E306	20-Aug-2024	20-Aug-2024	28 days	o days	•	20-Aug-2024	20 days	o days	•
				uays						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GLG-2024-00003-002	E508	20-Aug-2024	28-Aug-2024	28	8 days	1	28-Aug-2024	28 days	8 days	✓
GLG-2024-00003-002	L300	20-Aug-2024	20-Aug-2024	days	0 days	•	20-Aug-2024	20 days	0 days	•
Trial Marsia, Tarai Marsia, in Marsia, bu 2004.				uays						
Total Metals: Total Mercury in Water by CVAAS		I					I			
Glass vial total (hydrochloric acid) GLG-2024-00003-003	E508	20-Aug-2024	28-Aug-2024	28	8 days	√	28-Aug-2024	28 days	8 days	√
010 101 00000 000		20 / 109 2024	25 / ldg 2024	days	Jaays	•	207.09 2024		Jaays	•
Total Matala - Total Mayarini in Water by CVAAC				44,5						
Total Metals : Total Mercury in Water by CVAAS Glass vial total (hydrochloric acid)										
GLG-2024-00003-004	E508	20-Aug-2024	28-Aug-2024	28	8 days	✓	28-Aug-2024	28 days	8 davs	✓
220 232 . 33333			_3 / 109 _0_ 1	days	3,3				3,3	
				days						

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

Matrix: Water						/alualion. ^ =	Holding time exce	euance , v	- vvitiiiii	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00003-006	E508	20-Aug-2024	28-Aug-2024	28	8 days	✓	28-Aug-2024	28 days	8 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00003-010	E508	20-Aug-2024	28-Aug-2024	28	8 days	1	28-Aug-2024	28 days	8 days	✓
			_	days			-	-	-	
Total Metals : Total Mercury in Water by CVAAS				,						
Glass vial total (hydrochloric acid)				<u> </u>	<u> </u>		l			
GLG-2024-00003-011	E508	20-Aug-2024	28-Aug-2024	28	8 days	1	28-Aug-2024	28 days	8 davs	✓
010 1011 00000 011				days	, -			, -	, -	
Total Madela - Tatal Managemaia Water by CVAAC				aayo						
Total Metals: Total Mercury in Water by CVAAS							<u> </u>			
Glass vial total (hydrochloric acid) GLG-2024-00003-012	E508	20-Aug-2024	28-Aug-2024	28	8 days	✓	28-Aug-2024	28 days	8 daye	✓
GLG-2024-00003-012	L300	20-Aug-2024	20-Aug-2024	days	0 days	, i	20-Aug-2024	20 days	o uays	•
				uays						
Total Metals : Total Mercury in Water by CVAAS				T	I	I		T		
Glass vial total (hydrochloric acid)	E500	00 4 0004	00 4 0004		0 4	✓	00 4 0004	00 4	0 -1	√
GLG-2024-00003-013	E508	20-Aug-2024	28-Aug-2024	28	8 days	•	28-Aug-2024	28 days	8 days	•
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00003-019	E508	20-Aug-2024	28-Aug-2024	28	8 days	✓	28-Aug-2024	28 days	8 days	✓
				days						
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-003	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	28-Aug-2024	180	8 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)	I									
GLG-2024-00003-019	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	28-Aug-2024	180	8 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)							I			
GLG-2024-00003-001	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
		5		days	,-			days	,-	
				aays				days		

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

							Holding time exce			
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-002	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-004	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-005	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-006	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-010	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-011	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)				T						
GLG-2024-00003-012	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-013	E420	20-Aug-2024	28-Aug-2024	180	8 days	✓	29-Aug-2024	180	9 days	✓
				days				days		
Volatile Organic Compounds : BTEX by Headspace GC-MS				1						
Glass vial (sodium bisulfate)										
GLG-2024-00003-001	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
	I	1	_	days						

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

Matrix: Water						aluation. • -	Holding time excee	Juanice , .	- vvicinii	riolaling rillin
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-002	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-003	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-004	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-006	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-010	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-011	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-012	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-013	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-019	E611A	20-Aug-2024	23-Aug-2024	14	3 days	✓	23-Aug-2024	14 days	3 days	✓
020 2021 00000 010		-	_		-					

Legend & Qualifier Definitions

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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).

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

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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									
Quality Control Sample Type				ount		Frequency (%)				
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation			
Laboratory Duplicates (DUP)										
Alkalinity Species by Titration	E290	1617396	1	19	5.2	5.0	✓			
Ammonia by Fluorescence	E298	1617728	1	20	5.0	5.0	✓			
BTEX by Headspace GC-MS	E611A	1612234	1	17	5.8	5.0	✓			
CCME PHC - F1 by Headspace GC-FID	E581.F1	1612235	1	16	6.2	5.0	√			
Chloride in Water by IC	E235.CI	1617401	1	15	6.6	5.0	✓			
Conductivity in Water	E100	1617397	1	16	6.2	5.0	1			
Dissolved Metals in Water by CRC ICPMS	E421	1618358	1	19	5.2	5.0	✓			
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1617406	1	17	5.8	5.0	1			
Nitrate in Water by IC (Low Level)	E235.NO3-L	1617403	1	19	5.2	5.0	√			
Nitrite in Water by IC (Low Level)	E235.NO2-L	1617404	1	17	5.8	5.0	<u>√</u>			
pH by Meter	E108	1617398	1	16	6.2	5.0	<u> </u>			
Sulfate in Water by IC	E235.SO4	1617399	1	19	5.2	5.0	<u>√</u>			
TDS by Gravimetry (Low Level)	E162-L	1618736	1	19	5.2	5.0	<u> </u>			
Total Mercury in Water by CVAAS	E508	1620206	2	29	6.9	5.0	<u> </u>			
Total Metals in Water by CRC ICPMS	E420	1618306	3	26	11.5	5.0	<u> </u>			
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1617726	1	20	5.0	5.0	<u> </u>			
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1617727	1	20	5.0	5.0	<u> </u>			
Laboratory Control Samples (LCS)							-			
Alkalinity Species by Titration	E290	1617396	1	19	5.2	5.0	√			
Ammonia by Fluorescence	E298	1617728	1	20	5.0	5.0	<u> </u>			
BTEX by Headspace GC-MS	E611A	1612234	1	17	5.8	5.0	<u> </u>			
CCME PHC - F1 by Headspace GC-FID	E581.F1	1612235	1	16	6.2	5.0	<u> </u>			
CCME PHCs - F2-F4 by GC-FID	E601	1615928	1	19	5.2	5.0	<u> </u>			
Chloride in Water by IC	E235.CI	1617401	1	15	6.6	5.0	<u> </u>			
Conductivity in Water	E100	1617397	1	16	6.2	5.0	<u> </u>			
Dissolved Metals in Water by CRC ICPMS	E421	1618358	1	19	5.2	5.0	<u> </u>			
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1617406	1	17	5.8	5.0	<u> </u>			
Nitrate in Water by IC (Low Level)	E235.NO3-L	1617403	1	19	5.2	5.0	<u> </u>			
Nitrite in Water by IC (Low Level)	E235.NO2-L	1617404	1	17	5.8	5.0	<u> </u>			
pH by Meter	E108	1617398	1	16	6.2	5.0	<u> </u>			
Sulfate in Water by IC	E235.SO4	1617399	1	19	5.2	5.0	<u> </u>			
TDS by Gravimetry (Low Level)	E162-L	1618736	1	19	5.2	5.0	<u> </u>			
Total Mercury in Water by CVAAS	E508	1620206	2	29	6.9	5.0	<u> </u>			
Total Metals in Water by CRC ICPMS	E420	1618306	2	26	7.6	5.0	<u> </u>			
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1617726	1	20	5.0	5.0	<u> </u>			
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1617727	1	20	5.0	5.0	<u> </u>			

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Matrix: Water		Lvaluati	on: × = QC freque		I		
Quality Control Sample Type	Method	QC Lot #	QC	ount Regular	Actual	Frequency (%)	Evaluation
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Control Samples (LCS) - Continued							
TSS by Gravimetry (Low Level)	E160-L	1618759	1	18	5.5	5.0	<u> </u>
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1617396	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1617728	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1612234	1	17	5.8	5.0	\checkmark
CCME PHC - F1 by Headspace GC-FID	E581.F1	1612235	1	16	6.2	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1615928	1	19	5.2	5.0	✓
Chloride in Water by IC	E235.CI	1617401	1	15	6.6	5.0	✓
Conductivity in Water	E100	1617397	1	16	6.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1618358	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1617406	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1617403	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1617404	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1617399	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1618736	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1620206	2	29	6.9	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1618306	2	26	7.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1617726	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1617727	1	20	5.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1618759	1	18	5.5	5.0	√
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1617728	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1612234	1	17	5.8	5.0	✓
Chloride in Water by IC	E235.CI	1617401	1	15	6.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1618358	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1617406	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1617403	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1617404	1	17	5.8	5.0	<u>√</u>
Sulfate in Water by IC	E235.SO4	1617399	1	19	5.2	5.0	√
Total Mercury in Water by CVAAS	E508	1620206	2	29	6.9	5.0	<u> </u>
Total Metals in Water by CRC ICPMS	E420	1618306	2	26	7.6	5.0	<u>√</u>
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1617726	1	20	5.0	5.0	<u> </u>
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1617727	1	20	5.0	5.0	

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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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Vancouver			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Vancouver			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Vancouver			brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			J
Chloride in Water by IC	E235.CI	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Sulfate in Water by IC	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Alkalinity Species by Titration	E290	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Vancouver			

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
CCME PHC - F1 by Headspace GC-FID	E581.F1 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.

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ALS Environmental- Calgary Dissolved Hardness (Calculated) EFA \$260D (mod.) Dissolved Hardness (Calculated) EFA \$260D (mod.) ALS Environmental- Vancouver ALS Envi	Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Calgary Multimate Reference Method for the Canada-Wide Standard for PHC Unless qualified, all required quality conducting of the CAME PHC method have been method in the composition of the CAME PHC method have been method in the composition of the CAME PHC method have been method in the composition of the CAME PHC method have been method in the floating response factor and linearity requirements. Valatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS Samples are prepared in headspace valate and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace autosampler, causing vOCs to partition between the aqueous phase and the headspace autosampler, causing vOCs to partition between the aqueous phase and the headspace autosampler, causing vOCs to partition between the aqueous phase and the headspace autosampler, causing vOCs to partition between the aqueous phase and the headspace autosampler, causing vOCs to partition between the aqueous phase and the headspace autosampler, causing vOCs to partition between the aqueous phase and the headspace value and application on the sum of calcium and Magnesium heardness. Total Hardness' refers to the sum of Galcium and Magnesium concentrations, because it is a property of water due to dissolved divident cations. ALS Environmental-Vancouver APHA 2340B	CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
Calgary Surprise Calgary Surprise Surprise Calculation Su		ALS Environmental -		'	Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply
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ALS Environmental - Calgary Sum F1 to F4 (C6-C50) EC581 Water CCME PHC in Soil - Tier 1 F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.				1	
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ALS Environmental - Calgary The state of th		Calgary			
ALS Environmental - overlap with other fractions. Calgary	Sum F1 to F4 (C6-C50)	EC581	Water	CCME PHC in Soil - Tier	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16),
Calgary				1	F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to
		ALS Environmental -			overlap with other fractions.
Preparation Methods Method / Lab Matrix Method Reference Method Descriptions		Calgary			
	Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

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Client



Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALS Environmental - Vancouver			
Preparation for Total Organic Carbon by	EP355	Water		Preparation for Total Organic Carbon by Combustion
Combustion	EF355	vvator		1 reparation for Total Organic Garbon by Gombustion
Compassion	ALS Environmental - Vancouver			
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental -			
	Vancouver			
Dissolved Metals Water Filtration	EP421	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental -			
	Vancouver			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the
	ALS Environmental -			GC/MS-FID system.
	Calgary			, and the second
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are
				extracted using a hexane liquid-liquid extraction.
	ALS Environmental -			
	Calgary			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order : YL2401240 Page : 1 of 17

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg
Address : 4910 53 Street Address : 314 Old Airpot

Address : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone :1 867 445 7143

ake - Phase 1 LTMP - Water Date Samples Received :21-Aug-2024 12:51

Date Analysis Commenced : 23-Aug-2024

Issue Date : 30-Aug-2024 18:07

Yellowknife NT Canada X1A 2P4
Telephone :----

Project : Gordon Lake - Phase 1 LTMP - Water

PO :----C-O-C number :----

Sampler : Magda Celejewski, Tarek Ghadieh

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 11

No. of samples analysed : 11

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	
Angelo Salandanan	Lab Assistant	Vancouver Metals, Burnaby, British Columbia	
Cynthia Bauer	Organic Supervisor	Calgary Organics, Calgary, Alberta	
Dan Gebert	Laboratory Analyst	Vancouver Metals, Burnaby, British Columbia	
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia	
Owen Cheng		Vancouver Metals, Burnaby, British Columbia	
Shantal Breeze	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Sorina Motea	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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.

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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	C Lot: 1617396)										
VA24C1571-007	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	70.0	69.8	0.286%	200%	
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, phenolphthalein (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	
		Alkalinity, total (as CaCO3)		E290	1.0	mg/L	70.0	69.8	0.286%	20%	
Physical Tests (QC	C Lot: 1617397)										
VA24C1571-007	Anonymous	Conductivity		E100	2.0	μS/cm	130	133	1.90%	10%	
Physical Tests (QC	C Lot: 1617398)										
VA24C1571-007	Anonymous	pH		E108	0.10	pH units	8.06	8.05	0.124%	4%	
Physical Tests (QC	C Lot: 1618736)									•	
VA24C1108-001	Anonymous	Solids, total dissolved [TDS]		E162-L	15.0	mg/L	171	170	0.586%	20%	
Anions and Nutrien	nts (QC Lot: 1617399)										
FJ2402512-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	6.00	mg/L	934	934	0.0825%	20%	
Anions and Nutrien	nts (QC Lot: 1617401)										
FJ2402512-002	Anonymous	Chloride	16887-00-6	E235.CI	10.0	mg/L	97.9	97.6	0.26	Diff <2x LOR	
Anions and Nutrien	its (QC Lot: 1617403)										
FJ2402512-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	
Anions and Nutrien	its (QC Lot: 1617404)										
FJ2402512-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0200	mg/L	<0.0200	<0.0200	0	Diff <2x LOR	
Anions and Nutrien	its (QC Lot: 1617406)										
FJ2402512-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	nts (QC Lot: 1617727)										
FJ2402507-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0032	0.0030	0.0001	Diff <2x LOR	
Anions and Nutrien	nts (QC Lot: 1617728)										
FJ2402507-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0064	0.0065	0.0001	Diff <2x LOR	
Organic / Inorganic	Carbon (QC Lot: 161	7726)									
FJ2402507-001	Anonymous	Carbon, total organic [TOC]		E355-L	0.50	mg/L	1.02	1.10	0.08	Diff <2x LOR	
Total Metals (QC L	ot: 1618306)										
YL2401235-001	Anonymous	Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.



ub-Matrix: Water	-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	Qualifie		
Total Metals (QC Lo	ot: 1618306) - continued												
YL2401235-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.116	0.104	10.8%	20%			
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00012	0.00012	0.000002	Diff <2x LOR			
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00096	0.00101	0.00006	Diff <2x LOR			
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0412	0.0432	4.81%	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	0.015	0.015	0.0001	Diff <2x LOR			
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	0.0000054	0.0000004	Diff <2x LOR			
		Calcium, total	7440-70-2	E420	0.050	mg/L	25.4	24.8	2.19%	20%			
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000012	0.000011	0.0000008	Diff <2x LOR			
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR			
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00158	0.00158	0.000006	Diff <2x LOR			
		Iron, total	7439-89-6	E420	0.010	mg/L	0.105	0.101	4.24%	20%			
		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	0.0041	0.0040	0.00007	Diff <2x LOR			
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	6.52	6.76	3.70%	20%			
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00368	0.00362	1.78%	20%			
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000740	0.000740	0.119%	20%			
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00108	0.00111	0.00003	Diff <2x LOR			
		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	1.20	1.27	5.90%	20%			
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00102	0.00105	0.00004	Diff <2x LOR			
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000204	0.000201	0.000004	Diff <2x LOR			
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.26	1.26	0.0700%	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	7.78	8.25	5.83%	20%			
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.132	0.132	0.138%	20%			
		Sulfur, total	7704-34-9	E420	0.50	mg/L	8.42	9.19	8.70%	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	<0.000010	<0.000010	0	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	7440-31-3	E420	0.00300	mg/L	<0.00300	<0.00010	0	Diff <2x LOR			
		Tungsten, total	7440-32-0	E420	0.00010	mg/L	<0.00300	<0.00010	0	Diff <2x LOR			

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Client : Stantec Consulting Ltd.



Client sample ID 1618306) - continued Anonymous	Analyte	CAS Number	Method	LOR	Unit	Original	Duplicate	RPD(%) or	Duplicate	Qualifier
<u> </u>						Result	Result	Difference	Limits	Quanner
Anonymous										
	Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000432	0.000438	1.38%	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	<0.00020	<0.00020	0	Diff <2x LOR	
1619303)										
Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	
	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	<0.00010	<0.00010	0	Diff <2x LOR	
	Barium, total	7440-39-3	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	
	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	<0.010	<0.010	0	Diff <2x LOR	
	Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
	Calcium, total	7440-70-2	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	
	Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	
	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	<0.00010	<0.00010	0	Diff <2x LOR	
	Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	
	Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	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	<0.0010	<0.0010	0	Diff <2x LOR	
		7439-95-4	E420	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	
					_			0		
		7439-98-7	E420	0.000050		<0.000050	<0.000050	0	Diff <2x LOR	
		7440-02-0	E420	0.00050		<0.00050	<0.00050	0	Diff <2x LOR	
					-			0		
			E420	0.050			<0.050	0	Diff <2x LOR	
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					-					
		Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Chromium, total Cobalt, total Copper, total Iron, total	Barium, total Beryllium, total Beryllium, total T440-39-3 Beryllium, total T440-69-9 Boron, total Cadmium, total Cadmium, total Calcium, total Calcium, total Calcium, total Cobalt, total Cobalt, total Copper, total Iron, total Lead, total Lithium, total Manganese, total Molybdenum, total Phosphorus, total Potassium, total	Barium, total Beryllium, total Beryllium, total Beryllium, total Beryllium, total T440-41-7 E420 Bismuth, total T440-69-9 E420 Boron, total Cadmium, total Calcium, total Calcium, total Cesium, total Cobalt, total Copper, total Lead, total Lead, total Manganese, total Molybdenum, total Molybdenum, total Phosphorus, total Potassium, total Rubidium, total Rubidium, total T440-17-7 E420 Magnesium, total T439-93-2 E420 Molybdenum, total T439-98-7 E420 Phosphorus, total T723-14-0 E420 Phosphorus, total T723-14-0 E420 E420 E420 Selenium, total T782-49-2 E420 Silicon, total T7440-22-4 E420 Sodium, total T7440-23-5 E420 Strontium, total T7440-23-5 E420 Strontium, total T7440-23-5 E420	Barium, total Beryllium, total Peryllium, total Beryllium, total Beryllium, total Beryllium, total Bismuth, total Bismuth, total Bismuth, total Boron, total Cadmium, total Cadmium, total Cadmium, total Calcium, total	Barlum, total 7440-39-3 E420 0.00010 mg/L Beryllium, total 7440-41-7 E420 0.000020 mg/L Bismuth, total 7440-69-9 E420 0.000050 mg/L Boron, total 7440-42-8 E420 0.010 mg/L Cadmium, total 7440-43-9 E420 0.0000050 mg/L Calcium, total 7440-70-2 E420 0.00001 mg/L Cesium, total 7440-86-2 E420 0.00001 mg/L Chromium, total 7440-46-2 E420 0.00050 mg/L Cobalt, total 7440-47-3 E420 0.00050 mg/L Copper, total 7440-88-4 E420 0.00010 mg/L Iron, total 7439-89-6 E420 0.00050 mg/L Lead, total 7439-89-6 E420 0.00050 mg/L Lithium, total 7439-93-2 E420 0.00050 mg/L Margensium, total 7439-93-7 E420 0.00050 mg/L	Barium, total Peryllium, total Perylliu	Barium, total 7440-39-3 E420 0.00010 mg/L <0.00010	Barium, total 7440-39-3 E420 0.00010 mg/L <0.00010 <0.00010 0 Beyllium, total 7440-41-7 E420 0.00020 mg/L <0.000020 <0.000020 0 Blamuth, total 7440-69-9 E420 0.000050 mg/L <0.000050 <0.000050 0 Blamuth, total 7440-42-8 E420 0.010 mg/L <0.000050 <0.000050 0 Galum, total 7440-42-8 E420 0.010 mg/L <0.000050 <0.000050 0 Galum, total 7440-43-9 E420 0.000050 mg/L <0.000050 <0.0000050 0 Galum, total 7440-43-9 E420 0.000050 mg/L <0.000050 <0.0000050 0 Galum, total 7440-40-2 E420 0.0000 mg/L <0.000010 <0.000010 0 Galum, total 7440-46-2 E420 0.00010 mg/L <0.00010 <0.000010 0 Galum, total 7440-46-4 E420 0.00010 mg/L <0.00010 <0.00010 0 Galum, total 7440-46-4 E420 0.00010 mg/L <0.00010 <0.00010 0 Galum, total 7440-48-4 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7440-50-8 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-89-8 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-89-8 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 0 Galum, total 7439-93-2 E420 0.00050 mg/L <0.00050 0 Galum, total 7440-09-7 E420 0.00000 mg/L <0.00050 0 Galum, total 7440-09-7 E420 0.00000 mg/L <0.00050 0 Galum, total 7440-09-7 E420 0.00000 mg/L <0.000050 0 Galum, total 7440-24-8 E420 0.000010 mg/L <0.000050 0 Galum, total 7440-24-8 E420 0.000010 mg/L <0.000050 0 Galum, total 7440-24-8 E420 0.000010 mg/L <0.000050	Barlum, total 7440-39-3 E420 0.00010 mg/L <0.00010

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water	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 Lo	ot: 1619303) - continue	d											
FJ2402566-014	Anonymous	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	<0.000010	<0.000010	0	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	<0.000010	<0.000010	0	Diff <2x LOR			
		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	<0.00020	<0.00020	0	Diff <2x LOR			
Total Metals (QC Lo	ot: 1620206)												
KS2403222-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR			
Total Metals (QC Lo	ot: 1620207)												
YL2401240-004	GLG-2024-00003-004	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR			
Dissolved Metals (QC Lot: 1618358)												
YL2401235-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.050	mg/L	27.0	25.9	4.03%	20%			
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	7.20	7.09	1.60%	20%			
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.16	1.19	2.32%	20%			
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	8.12	8.12	0.00343%	20%			
Volatile Organic Co	mpounds (QC Lot: 161	2234)											
CG2411792-009	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	0.0173 mg/L	18.6	7.47%	30%			
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	0.00587 mg/L	5.95	1.24%	30%			
		Toluene	108-88-3	E611A	0.50	μg/L	0.00132 mg/L	1.40	0.08	Diff <2x LOR			
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	0.00101 mg/L	0.97	0.03	Diff <2x LOR			
		Xylene, o-	95-47-6	E611A	0.30	μg/L	0.00077 mg/L	0.72	0.05	Diff <2x LOR			
Hydrocarbons (QC	Lot: 1612235)									1	1		
CG2411792-009	Anonymous	F1 (C6-C10)		E581.F1	100	μg/L	0.57 mg/L	500	70	Diff <2x LOR			

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Method Blank (MB) Report

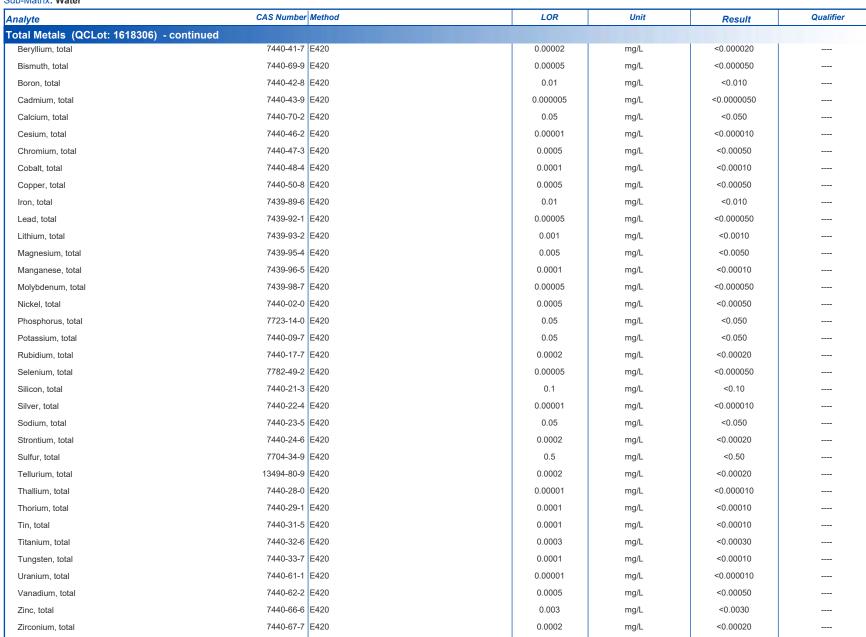
A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the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

Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1617396)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
Physical Tests (QCLot: 1617397)					
Conductivity	E100	1	μS/cm	1.0	
Physical Tests (QCLot: 1618736)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
hysical Tests (QCLot: 1618759)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
Anions and Nutrients (QCLot: 1617399)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
nions and Nutrients (QCLot: 1617401)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
nions and Nutrients (QCLot: 1617403)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
nions and Nutrients (QCLot: 1617404)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1617406)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1617727)					
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	<0.0020	
nions and Nutrients (QCLot: 1617728)					
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	<0.0050	
rganic / Inorganic Carbon (QCLot: 1617					
Carbon, total organic [TOC]	E355-L	0.5	mg/L	<0.50	
otal Metals (QCLot: 1618306)					
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	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water

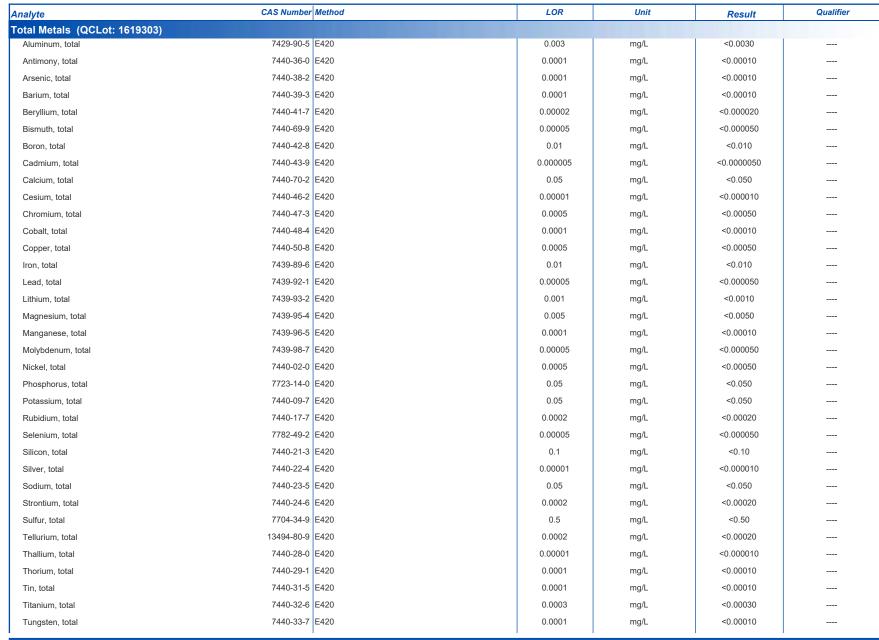




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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water





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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1619303) - c	continued					
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: 1620206)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.000050	
otal Metals (QCLot: 1620207)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.000050	
Dissolved Metals (QCLot: 161835	8)					
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	
/olatile Organic Compounds (QC	Lot: 1612234)					
Benzene	71-43-2	E611A	0.5	μg/L	<0.50	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	<0.50	
Toluene	108-88-3	E611A	0.5	μg/L	<0.50	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	<0.40	
Xylene, o-	95-47-6	E611A	0.3	μg/L	<0.30	
Hydrocarbons (QCLot: 1612235)						
F1 (C6-C10)		E581.F1	100	μg/L	<100	
Hydrocarbons (QCLot: 1615928)						
F2 (C10-C16)		E601	100	μg/L	<100	
F3 (C16-C34)		E601	250	μg/L	<250	
F4 (C34-C50)		E601	250	μg/L	<250	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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	Target Concentration	LCS	Low	High	Qualifier		
Physical Tests (QCLot: 1617396)											
Alkalinity, phenolphthalein (as CaCO3)		E290	1	mg/L	229 mg/L	94.3	75.0	125			
Alkalinity, total (as CaCO3)		E290	1	mg/L	500 mg/L	98.7	85.0	115			
Physical Tests (QCLot: 1617397)											
Conductivity		E100	1	μS/cm	147 μS/cm	101	90.0	110			
Physical Tests (QCLot: 1617398)											
рН		E108		pH units	7 pH units	100	98.0	102			
Physical Tests (QCLot: 1618736)											
Solids, total dissolved [TDS]		E162-L	3	mg/L	1000 mg/L	105	85.0	115			
Physical Tests (QCLot: 1618759)											
Solids, total suspended [TSS]		E160-L	1	mg/L	150 mg/L	102	85.0	115			
Anions and Nutrients (QCLot: 1617399)		I							1		
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110			
Anions and Nutrients (QCLot: 1617401)	10007.00.0	I E e e e	0.5		100 "	400			1		
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110			
Anions and Nutrients (QCLot: 1617403)	11707.55.0	I E a se vica i	0.005			400		110	ı		
Nitrate (as N)	14/97-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110			
Anions and Nutrients (QCLot: 1617404)	44707.05.0	East No. 1	0.004			400			İ		
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110			
Anions and Nutrients (QCLot: 1617406)	44005 44.0	E070 II	0.004	,,	0.00 #	444	00.0	400	ı		
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	114	80.0	120			
Anions and Nutrients (QCLot: 1617727)	7723-14-0	E070 II	0.002	/I	0.05 //	04.0	00.0	400	ı		
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	94.6	80.0	120			
Anions and Nutrients (QCLot: 1617728)	7664-41-7	E200	0.005	ma er /1	0.2 mg/l	105	85.0	115	I		
Ammonia, total (as N)	7004-41-7	E290	0.005	mg/L	0.2 mg/L	105	65.0	115			
Organic / Inorganic Carbon (QCLot: 1617726) Carbon, total organic [TOC]		E355-L	0.5	mg/L	8.57 mg/L	100	80.0	120			
5.5.7.5., 15.6 5.9dillo [100]											
Total Metals (QCLot: 1618306)									1		
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	105	80.0	120			
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	103	80.0	120			
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Client : Stantec Consulting Ltd.



Analyte Total Metals (QCLot: 1618306) - continued Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6	E420 E420 E420 E420 E420 E420 E420 E420	0.0001 0.0001 0.00002 0.00005 0.01 0.000005 0.05 0.00001 0.00005	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Spike Target Concentration 1 mg/L 0.25 mg/L 0.1 mg/L 1 mg/L 1 mg/L 0.1 mg/L 50 mg/L	108 105 94.8 99.7 93.2 102	80.0 80.0 80.0 80.0 80.0 80.0 80.0	120 120 120 120 120 120 120	Qualifier
Total Metals (QCLot: 1618306) - continued Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total	7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420 E420 E420	0.0001 0.0001 0.00002 0.00005 0.01 0.000005 0.05	mg/L mg/L mg/L mg/L mg/L mg/L	1 mg/L 0.25 mg/L 0.1 mg/L 1 mg/L 1 mg/L 0.1 mg/L	108 105 94.8 99.7 93.2 102	80.0 80.0 80.0 80.0 80.0 80.0	120 120 120 120 120	
Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Chromium, total Copper, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420 E420 E420	0.0001 0.00002 0.00005 0.01 0.000005 0.05	mg/L mg/L mg/L mg/L mg/L	0.25 mg/L 0.1 mg/L 1 mg/L 1 mg/L 0.1 mg/L	105 94.8 99.7 93.2 102	80.0 80.0 80.0 80.0	120 120 120 120	
Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total	7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420 E420 E420	0.0001 0.00002 0.00005 0.01 0.000005 0.05	mg/L mg/L mg/L mg/L mg/L	0.25 mg/L 0.1 mg/L 1 mg/L 1 mg/L 0.1 mg/L	105 94.8 99.7 93.2 102	80.0 80.0 80.0 80.0	120 120 120 120	
Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total	7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420 E420 E420	0.00002 0.00005 0.01 0.000005 0.05	mg/L mg/L mg/L mg/L mg/L	0.1 mg/L 1 mg/L 1 mg/L 0.1 mg/L	94.8 99.7 93.2 102	80.0 80.0 80.0 80.0	120 120 120	
Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total	7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420 E420	0.00005 0.01 0.000005 0.05 0.00001	mg/L mg/L mg/L mg/L	1 mg/L 1 mg/L 0.1 mg/L	99.7 93.2 102	80.0 80.0 80.0	120 120	
Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total	7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420	0.01 0.000005 0.05 0.00001	mg/L mg/L	1 mg/L 0.1 mg/L	93.2 102	80.0 80.0	120	
Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total	7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420	0.000005 0.05 0.00001	mg/L mg/L	0.1 mg/L	102	80.0		
Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total	7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420	0.05 0.00001	mg/L	, and the second			120	
Cesium, total Chromium, total Cobalt, total Copper, total Iron, total	7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420	0.00001		50 mg/L				e contract of the contract of
Chromium, total Cobalt, total Copper, total Iron, total	7440-47-3 7440-48-4 7440-50-8	E420 E420		mg/L		95.3	80.0	120	
Cobalt, total Copper, total Iron, total	7440-48-4 7440-50-8	E420	0.0005		0.05 mg/L	95.8	80.0	120	
Copper, total Iron, total	7440-50-8			mg/L	0.25 mg/L	103	80.0	120	
Iron, total			0.0001	mg/L	0.25 mg/L	101	80.0	120	
	7439-89-6	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	
ead total		E420	0.01	mg/L	1 mg/L	105	80.0	120	
2044, 10141	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.6	80.0	120	
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	95.4	80.0	120	
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	
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	104	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	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	105	80.0	120	
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	111	80.0	120	
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	112	80.0	120	
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.8	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	101	80.0	120	
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	
rellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.2	80.0	120	
Thallium, total	7440-28-0		0.00001	mg/L	1 mg/L	100	80.0	120	
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.3	80.0	120	
Fin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	
Fitanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.3	80.0	120	
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.8	80.0	120	
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.3	80.0	120	
√anadium, total	7440-62-2		0.0005	mg/L	0.5 mg/L	104	80.0	120	
Zinc, total	7440-66-6		0.003	mg/L	0.5 mg/L	99.2	80.0	120	

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water						Laboratory Cor	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1618306) - continu	ed								
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	98.6	80.0	120	
Total Metals (QCLot: 1619303)									
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	108	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	101	80.0	120	
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	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	92.2	80.0	120	
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.6	80.0	120	
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	100.0	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	97.6	80.0	120	
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	95.9	80.0	120	
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	95.3	80.0	120	
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.3	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	97.9	80.0	120	
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	98.9	80.0	120	
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.0	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	95.9	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	103	80.0	120	
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.3	80.0	120	
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	94.6	80.0	120	
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	104	80.0	120	
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.5	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	104	80.0	120	
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	88.3	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	106	80.0	120	
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.7	80.0	120	
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.6	80.0	120	
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Client : Stantec Consulting Ltd.



Sub-Matrix: Water						Laboratory Control Sample (LCS) Report			
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1619303) - continue	ed								
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	105	80.0	120	
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.4	80.0	120	
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.0	80.0	120	
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	
Total Metals (QCLot: 1620206)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	102	80.0	120	
Total Metals (QCLot: 1620207)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	102	80.0	120	
Dissolved Metals (QCLot: 1618358)									
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.0	80.0	120	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	104	80.0	120	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	100	80.0	120	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	106	80.0	120	
Volatile Organic Compounds (QCLot: 16									
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	116	70.0	130	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	104	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	112	70.0	130	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	98.4	70.0	130	
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	112	70.0	130	
Hydrocarbons (QCLot: 1612235)									
F1 (C6-C10)		E581.F1	100	μg/L	2480 μg/L	94.6	70.0	130	
Hydrocarbons (QCLot: 1615928)									
F2 (C10-C16)		E601	100	μg/L	3830 μg/L	84.9	70.0	130	
F3 (C16-C34)		E601	250	μg/L	7950 μg/L	95.6	70.0	130	
F4 (C34-C50)		E601	250	μg/L	4220 μg/L	100	70.0	130	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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	e (MS) Report				
					Spi	ke	Recovery (%)	Recovery	Limits (%)	
Laboratory sample	ID Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nut	rients (QCLot: 161739	9)								
FJ2402512-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	2020 mg/L	2000 mg/L	101	75.0	125	
Anions and Nut	rients (QCLot: 161740	01)								
FJ2402512-003	Anonymous	Chloride	16887-00-6	E235.CI	2040 mg/L	2000 mg/L	102	75.0	125	
Anions and Nut	rients (QCLot: 161740	3)								
FJ2402512-003	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	50.8 mg/L	50 mg/L	102	75.0	125	
Anions and Nut	rients (QCLot: 161740	04)								
FJ2402512-003	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	10.00 mg/L	10 mg/L	100.0	75.0	125	
Anions and Nut	rients (QCLot: 161740	D6)								
FJ2402512-003	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	ND mg/L		ND	70.0	130	
Anions and Nut	rients (QCLot: 161772	27)								
FJ2402507-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0494 mg/L	0.05 mg/L	98.8	70.0	130	
Anions and Nut	rients (QCLot: 161772	28)								
FJ2402507-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.105 mg/L	0.1 mg/L	105	75.0	125	
Organic / Inorga	anic Carbon (QCLot: 1									
FJ2402507-002	Anonymous	Carbon, total organic [TOC]		E355-L	5.12 mg/L	5 mg/L	102	70.0	130	
Total Metals (Q	CLot: 1618306)									
YL2401235-002	Anonymous	Aluminum, total	7429-90-5	E420	0.182 mg/L	0.2 mg/L	91.1	70.0	130	
		Antimony, total	7440-36-0	E420	0.0190 mg/L	0.02 mg/L	95.1	70.0	130	
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	
		Barium, total	7440-39-3	E420	ND mg/L		ND	70.0	130	
		Beryllium, total	7440-41-7	E420	0.0364 mg/L	0.04 mg/L	91.0	70.0	130	
		Bismuth, total	7440-69-9	E420	0.00920 mg/L	0.01 mg/L	92.0	70.0	130	
		Boron, total	7440-42-8	E420	0.090 mg/L	0.1 mg/L	90.3	70.0	130	
		Cadmium, total	7440-43-9	E420	0.00390 mg/L	0.004 mg/L	97.5	70.0	130	
		Calcium, total	7440-70-2	E420	ND mg/L		ND	70.0	130	
		Cesium, total	7440-46-2	E420	0.00937 mg/L	0.01 mg/L	93.7	70.0	130	
		Chromium, total	7440-47-3	E420	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	
		Cobalt, total	7440-48-4	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	
		Copper, total	7440-50-8	E420	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	
		Iron, total	7439-89-6	E420	1.95 mg/L	2 mg/L	97.6	70.0	130	
		Lead, total	7439-89-8	E420	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	
					_	_				
		Lithium, total	7439-93-2	E420	0.0868 mg/L	0.1 mg/L	86.8	70.0	130	
		Magnesium, total	7439-95-4	E420	ND mg/L		ND	70.0	130	
		Manganese, total	7439-96-5	E420	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	
		Molybdenum, total	7439-98-7	E420	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	

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Client : Stantec Consulting Ltd.



ub-Matrix: Water					Matrix Spike (MS) Report					
					Spi	ike	Recovery (%)	Recovery	Limits (%)	
aboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifie
otal Metals (QC	Lot: 1618306) - con	tinued								
YL2401235-002	Anonymous	Nickel, total	7440-02-0	E420	0.0392 mg/L	0.04 mg/L	98.0	70.0	130	
		Phosphorus, total	7723-14-0	E420	9.83 mg/L	10 mg/L	98.3	70.0	130	
		Potassium, total	7440-09-7	E420	4.05 mg/L	4 mg/L	101	70.0	130	
		Rubidium, total	7440-17-7	E420	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	
		Selenium, total	7782-49-2	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	
		Silicon, total	7440-21-3	E420	9.68 mg/L	10 mg/L	96.8	70.0	130	
		Silver, total	7440-22-4	E420	0.00388 mg/L	0.004 mg/L	96.9	70.0	130	
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130	
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130	
		Sulfur, total	7704-34-9	E420	20.9 mg/L	20 mg/L	104	70.0	130	
		Tellurium, total	13494-80-9	E420	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	
		Thallium, total	7440-28-0	E420	0.00364 mg/L	0.004 mg/L	91.0	70.0	130	
		Thorium, total	7440-29-1	E420	0.0171 mg/L	0.02 mg/L	85.5	70.0	130	
		Tin, total	7440-31-5	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	
		Titanium, total	7440-32-6	E420	0.0382 mg/L	0.04 mg/L	95.6	70.0	130	
		Tungsten, total	7440-33-7	E420	0.0183 mg/L	0.02 mg/L	91.4	70.0	130	
		Uranium, total	7440-61-1	E420	0.00373 mg/L	0.004 mg/L	93.3	70.0	130	
		Vanadium, total	7440-62-2	E420	0.0999 mg/L	0.1 mg/L	99.9	70.0	130	
		· ·				_		=0.0	400	
		Zinc, total	7440-66-6	E420	0.385 mg/L	0.4 mg/L	96.2	70.0	130	
		Zinc, total Zirconium, total	7440-66-6 7440-67-7	E420 E420	0.385 mg/L 0.0382 mg/L	0.4 mg/L 0.04 mg/L	96.2 95.5	70.0 70.0	130 130	
otal Metals (QC	Lot: 1619303)				_					
	Lot: 1619303) GLG-2024-00003-019	Zirconium, total	7440-67-7	E420	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	
		Zirconium, total Aluminum, total	7440-67-7 7429-90-5		0.0382 mg/L 0.194 mg/L					
		Zirconium, total Aluminum, total Antimony, total	7440-67-7 7429-90-5 7440-36-0	E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L	95.5 97.1 106	70.0 70.0 70.0	130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2	E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L	95.5 97.1 106 103	70.0 70.0 70.0 70.0	130 130 130 130	
		Aluminum, total Antimony, total Arsenic, total Barium, total	7440-67-7 7429-90-5 7440-36-0	E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L	95.5 97.1 106 103 ND	70.0 70.0 70.0	130 130 130 130 130	
		Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7	E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L	95.5 97.1 106 103 ND 99.0	70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130	
		Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9	E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.04 mg/L 0.01 mg/L	95.5 97.1 106 103 ND 99.0 97.0	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130	
· ·		Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.098 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L	95.5 97.1 106 103 ND 99.0 97.0 98.6	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
· ·		Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.098 mg/L 0.00398 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.1 mg/L 0.004 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130	
· ·		Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.098 mg/L 0.00398 mg/L ND mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.104 mg/L 0.004 mg/L	95.5 97.1 106 103 ND 99.0 97.0 98.6 99.6 ND	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
		Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.098 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.004 mg/L 0.004 mg/L 0.01 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.098 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0392 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.1 mg/L 0.004 mg/L 0.01 mg/L 0.004 mg/L	95.5 97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.0088 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0392 mg/L 0.0188 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.1 mg/L 0.004 mg/L 0.01 mg/L 0.004 mg/L 0.01 mg/L 0.02 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.098 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0392 mg/L 0.0188 mg/L 0.0181 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.1 mg/L 0.004 mg/L 0.01 mg/L 0.00 mg/L 0.02 mg/L 0.02 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1 94.3	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0392 mg/L 0.0188 mg/L 0.0181 mg/L 1.84 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.00 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L 2 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1 94.3 90.6 92.2	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0392 mg/L 0.0188 mg/L 0.0181 mg/L 1.84 mg/L 0.0190 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1 94.3 90.6 92.2	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total Lithium, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-93-2	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0392 mg/L 0.0188 mg/L 0.0181 mg/L 1.84 mg/L 0.0190 mg/L 0.0975 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.00 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L 2 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1 94.3 90.6 92.2 94.9 97.5	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Chromium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total Lithium, total Magnesium, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-47-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-93-2 7439-95-4	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0188 mg/L 0.0188 mg/L 0.0184 mg/L 0.0181 mg/L 1.84 mg/L 0.0190 mg/L 0.0975 mg/L ND mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 0.02 mg/L 1.02 mg/L 1.02 mg/L 1.03 mg/L 1.04 mg/L 1.05 mg/L 1.05 mg/L 1.06 mg/L 1.07 mg/L 1.08 mg/L 1.09 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1 94.3 90.6 92.2 94.9 97.5 ND	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
		Zirconium, total Aluminum, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total Lithium, total Magnesium, total Magnesee, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-47-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-93-2 7439-95-4 7439-96-5	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0188 mg/L 0.0181 mg/L 1.84 mg/L 0.0190 mg/L 0.0975 mg/L ND mg/L 0.0184 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1 94.3 90.6 92.2 94.9 97.5 ND	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
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· ·		Aluminum, total Antimony, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total Lithium, total Magnesium, total Manganese, total Molybdenum, total Nickel, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-70-2 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-92-1 7439-93-2 7439-95-4 7439-96-5 7439-98-7 7440-02-0	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0392 mg/L 0.0188 mg/L 0.0181 mg/L 1.84 mg/L 0.0190 mg/L 0.0190 mg/L 0.0975 mg/L ND mg/L 0.0184 mg/L 0.0184 mg/L 0.0184 mg/L 0.0364 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L 0.04 mg/L 0.04 mg/L 0.05 mg/L 0.06 mg/L 0.07 mg/L 0.08 mg/L 0.09 mg/L 0.09 mg/L 0.01 mg/L 0.01 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1 94.3 90.6 92.2 94.9 97.5 ND 91.8	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	
· ·		Aluminum, total Antimony, total Antimony, total Arsenic, total Barium, total Beryllium, total Bismuth, total Boron, total Cadmium, total Calcium, total Cesium, total Chromium, total Cobalt, total Copper, total Iron, total Lead, total Lithium, total Magnesium, total Manganese, total Molybdenum, total	7440-67-7 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-69-9 7440-42-8 7440-43-9 7440-47-0 7440-46-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-93-2 7439-95-4 7439-96-5 7439-98-7	E420 E420 E420 E420 E420 E420 E420 E420	0.0382 mg/L 0.194 mg/L 0.0213 mg/L 0.0207 mg/L ND mg/L 0.0396 mg/L 0.00970 mg/L 0.00398 mg/L ND mg/L 0.0106 mg/L 0.0188 mg/L 0.0181 mg/L 1.84 mg/L 0.0190 mg/L 0.0975 mg/L ND mg/L 0.0184 mg/L 0.0184 mg/L	0.04 mg/L 0.2 mg/L 0.02 mg/L 0.02 mg/L 0.04 mg/L 0.01 mg/L 0.01 mg/L 0.04 mg/L 0.02 mg/L	97.1 106 103 ND 99.0 97.0 98.6 99.6 ND 106 98.1 94.3 90.6 92.2 94.9 97.5 ND	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	130 130 130 130 130 130 130 130	

Page : 17 of 17 Work Order : YL2401240

Client : Stantec Consulting Ltd.



Sub-Matrix: Water							Matrix Spil	ke (MS) Report		
					Spi	ke	Recovery (%)	Recovery	Limits (%)	
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCI	Lot: 1619303) - contir	nued								
YL2401240-003	GLG-2024-00003-019	Selenium, total	7782-49-2	E420	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	
		Silicon, total	7440-21-3	E420	9.48 mg/L	10 mg/L	94.8	70.0	130	
		Silver, total	7440-22-4	E420	0.00422 mg/L	0.004 mg/L	105	70.0	130	
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130	
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130	
		Sulfur, total	7704-34-9	E420	ND mg/L		ND	70.0	130	
		Tellurium, total	13494-80-9	E420	0.0429 mg/L	0.04 mg/L	107	70.0	130	
		Thallium, total	7440-28-0	E420	0.00381 mg/L	0.004 mg/L	95.4	70.0	130	
		Thorium, total	7440-29-1	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	
		Tin, total	7440-31-5	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	
		Titanium, total	7440-32-6	E420	0.0380 mg/L	0.04 mg/L	94.9	70.0	130	
		Tungsten, total	7440-33-7	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	
		Uranium, total	7440-61-1	E420	0.00402 mg/L	0.004 mg/L	100	70.0	130	
		Vanadium, total	7440-62-2	E420	0.0978 mg/L	0.1 mg/L	97.8	70.0	130	
		Zinc, total	7440-66-6	E420	0.368 mg/L	0.4 mg/L	92.1	70.0	130	
		Zirconium, total	7440-67-7	E420	0.0431 mg/L	0.04 mg/L	108	70.0	130	
Total Metals (QCI	Lot: 1620206)									
VA24C1031-001	Anonymous	Mercury, total	7439-97-6	E508	0.000102 mg/L	0 mg/L	102	70.0	130	
Total Metals (QCI	Lot: 1620207)									
YL2401240-005	GLG-2024-00003-003	Mercury, total	7439-97-6	E508	0.000101 mg/L	0 mg/L	101	70.0	130	
Dissolved Metals	(QCLot: 1618358)									
YL2401235-002	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L		ND	70.0	130	
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130	
		Potassium, dissolved	7440-09-7	E421	3.95 mg/L	4 mg/L	98.7	70.0	130	
		Sodium, dissolved	7440-23-5	E421	ND mg/L		ND	70.0	130	
Volatile Organic C	Compounds (QCLot:	1612234)								
CG2411792-009	Anonymous	Benzene	71-43-2	E611A	129 µg/L	100 μg/L	129	70.0	130	
	•	Ethylbenzene	100-41-4	E611A	113 µg/L	100 μg/L	113	70.0	130	
		Toluene	108-88-3	E611A	118 µg/L	100 μg/L	118	70.0	130	
		Xylene, m+p-	179601-23-1	E611A	197 µg/L	200 μg/L	98.5	70.0	130	
1		Xylene, o-	95-47-6	E611A	112 µg/L	100 µg/L	112	70.0	130	



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Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

COC Number: 22 -

Deto:	Received by:		Pra 211.	Page: 21/2	Time: Received by:	TAREK GHADIEN 21-Au - 24	CHADIEN	TAREK
FINAL SHIPMENT RECEPTION (ALS use only)		se only)	RECEPTION (ALS u	INITIAL SHIPMENT RECEPTION (ALS use only)		SHIPMENT RELEASE (client use)		
1	P	10					YES X NO	0
:	Cooler Custody Seals Intact: Ves		s linsuf. Rec	24-00003-00	Filled for GLG-2024-00003-005 (insuf. recovery)	bollic only	YES X NO Are samples for human consumption/ use?	Are samples for
AMPLE RECEIPT DETAILS (and and admin del	(Excel COC only)	(E	(se)	Prinking water (DW) Samples (client use) Are samples taken from a Regulated DW System?	Are samples tal
			from drop down had	valuation by selecting	Notes / Specify Limits for yesult evaluation by selecting from drop-drops helion			
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		SW 10	11:30			GLG-2024-60603- 011	616-20	
		Sw 10				GL6-2024-00003-010	616-20	
	×	GW lo	13:30			6L6-2024-00003-001	616-20	
	×	em 10	13:00			516-2024-00003-003	616-200	
1 1240	×	GW 10	13:15			GL6-2024-00003-003	616-20	
VI UNIT OF THE FER INC.	O X	SW I	U.40			4-00003 - 004	GLG-2024-00003	
Yellowknife	lo X	SW 1	5			516-2024-00003-019	GL6-30	
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	×	SW	(0:00	20-Aug-24		-2024-00003-005	616-20	
Water	Groun Surfac Surfac	Sample Type	(hh.mm) Sa	(ad-mmm-yy)	the report)	(This description will appear on the report)		(ALS use only)
QC .	dWater P to Water f to Water f	WBER	Sampler: Terret Ghidich		ALS Contact:	a only): Sample Identification and/or Coordinates	rk Order# (ALS use	ALS Lab Wol
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	ge S ge W			1	Requisitioner.		1	PO / AFE:
	NP /est	201	Routing Code:	1	Major/Minor Code:	I LTMP - Water	Job / Project #: Gordon Lake - Phase LTMP - Water	Job / Project
	Bay	TA	PO#	1	AFE/Cost Center:	YL24-STAC100-0003	ALS Client Code / QUOTE #:	ALS Client Co
	1	IN	Fields (client use)	Oil and Gas Required Fields (client use)		Project Information	-	
	13401	-		- 1	Email 2	\$	Natalie Norma	Contact
Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below		10	itec.com	SAPinvoices@stantec.com	Email 1 or Fax	Consulting Ltd.	Stantic Cons	Company:
Analysis Request		^	ENAIL MAIL FAX	4	Select Invoice Distribution:	Report TYPES XXI NO	Copy of Invoice with Report	
For all tests with rush TATs requested, please contact your AM to confirm availability.	For all tosts		cipients	Invaice Recipients		□ YES □ NO	Same as Report To	Invoice To
WAILERP TATS:	Date and Time Required for all E&P TATS:		ac.com	ryan.weber@stantec.com	Email 3		X1A 2P4	Postal Code:
Additional fees may apply to rush requests on workends, statutory holidays and for non-routine tests.	Additional fees may as		stantec.com	steve.hannington@stantec.com	Email 2		Yellowknife/NT	City/Province:
Same day (E2) If received by 10em M-S - 200% rush surcharge.	Same day [E2] If received by 10am	FIL	u@stantec.com	natalie.normanceau@stantec.com	Email 1 or Fax		4910 53 Street	Street:
2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum	2 day [P2] if received by 3pm	70	☐ MAIL ☐ FAX	tion: 🗸 EMAIL	Select Distribution:	Company address below will appear on the final report	Company address below	
3 day [P3] If received by 3pm M-F - 25% rush surcharge minimum	3 day [P3] If received by 3pm	ox checked	provide details below if b	Compare Results to Criteria on Report - provide details below if box checked	☐ Compare Res		204-509-9864	Phone:
Routine [R] If received by 3pm M-F - no surcharges apply 4 day [P4] If received by 3pm M-F - 20% rush surcharge minimum	Routine [R] if received by 3pm M-F - no surcharges apply 1 day [P4] if received by 3pm M-F - 20% rush surcharge			ts with COA	Merge QC/QCI Repor	•	Natalie Normandeau	Contact
Turneround Time (TAT) Requested	Turneround T		1	choday	Calcar Dana	The second secon	Stanter Consulting I to	Company

ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Work Order : **YL2401272** Page : 1 of 10

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg
Address : 4910 53 Street Address : 314 Old Airpor

: 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife NT Canada X1A 2P4 Yellowknife NT Canada X1A 3T3

 Telephone
 : -- Telephone
 : 1 867 445 7143

 Project
 : Gordon Lake - Phase 1 LTMP - Water
 Date Samples Received
 : 23-Aug-2024 10:43

PO : ---- Date Analysis Commenced : 26-Aug-2024

C-O-C number : ---- Issue Date : 30-Aug-2024 18:10 Sampler : ----

Site :

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 8
No. of samples analysed : 8

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
- Surrogate Control Limits

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
Eunice Cura	Lab Analyst	Inorganics, Calgary, Alberta
George Huang	Supervisor - Inorganic	Metals, Calgary, Alberta
Gurvinder Kour	Lab Assistant	Metals, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Joshua Stessun	Laboratory Analyst	Organics, Calgary, Alberta
Jyotsnarani Devi	Laboratory Analyst	Organics, Calgary, Alberta
Katarzyna Glinka	Analyst	Inorganics, Calgary, Alberta
Kevin Baxter	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Kevin Baxter	Team Leader - Inorganics	Metals, Calgary, Alberta
Ruifang Zheng	Analyst	Inorganics, Calgary, Alberta
Shirley Li	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia

Page : 2 of 10 Work Order : YL2401272

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less 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.

Qualifiers

Description
Analytical holding time was exceeded.
Reported result verified by repeat analysis.

>: greater than.

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					3-015	3-016	3-017	3-014	3-009
			·	ling date / time	22-Aug-2024 09:30	22-Aug-2024 10:10	22-Aug-2024 10:45	22-Aug-2024 11:15	22-Aug-2024 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401272-001	YL2401272-002	YL2401272-003	YL2401272-004	YL2401272-005
					Result	Result	Result	Result	Result
Physical Tests		Tanasa a							40.0
Alkalinity, bicarbonate (as CaCO3)		E290/CG	1.0	mg/L	98.5	48.4	46.6	45.3	48.0
Alkalinity, carbonate (as CaCO3)		E290/CG	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/CG	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/CG	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/CG	1.0	mg/L	98.5	48.4	46.6	45.3	48.0
Conductivity		E100/CG	2.0	μS/cm	189	98.6	97.2	98.0	102
Hardness (as CaCO3), from total Ca/Mg		EC100A/CG	0.60	mg/L	92.4	43.7	42.8	42.2	44.4
pH		E108/CG	0.10	pH units	7.87	7.96	8.00	7.96	7.98
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	173	58.5	61.2	62.2	64.2
Solids, total suspended [TSS]		E160-L/CG	1.0	mg/L	11.1	<1.0	<1.0	<1.0	<1.0
Hardness (as CaCO3), dissolved		EC100/CG	0.50	mg/L	88.4	42.6	42.6	42.5	44.2
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7		0.0050	mg/L	0.0262	<0.0050	<0.0050	0.0069	0.0184
Chloride	16887-00-6	E235.CI/CG	0.50	mg/L	0.58	1.40	1.40	1.40	1.43
Nitrate (as N)	14797-55-8	E235.NO3-L/C	0.0050	mg/L	0.0093	<0.0050	<0.0050	0.0051	<0.0050
Nitrate (as NO3)	14797-55-8	G EC235.NO3A/ CG	0.010	mg/L	0.041	<0.022	<0.022	0.022	<0.022
Nitrate + Nitrite (as N)		EC235.N+N/C G	0.0050	mg/L	0.0093	<0.0051	<0.0051	0.0051	<0.0051
Nitrite (as N)		E235.NO2-L/C G	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nitrite (as NO2)		EC235.NO2A/ CG	0.0030	mg/L	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
Phosphate, ortho-, dissolved (as P)		E378-U/CG	0.0010	mg/L	0.0017 HTA	0.0012 HTA	<0.0010 HTA	0.0013 HTA	0.0012 HTA
Phosphorus, total		E372-U/CG	0.0020	mg/L	0.0836	0.0043	0.0033	0.0049	0.0042
Sulfate (as SO4)	14808-79-8	E235.SO4/CG	0.30	mg/L	8.68	7.52	7.67	7.49	8.06
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/CG	0.50	mg/L	30.4	2.98	3.34	3.11	3.63
Total Metals									
Aluminum, total	7429-90-5	E420/CG	0.0030	mg/L	0.183	0.0077	0.0081	0.0072	0.0111

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Sub-Matrix: Water		Cli	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				3-015	3-016	3-017	3-014	3-009
			ling date / time	22-Aug-2024 09:30	22-Aug-2024 10:10	22-Aug-2024 10:45	22-Aug-2024 11:15	22-Aug-2024 12:00
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401272-001	YL2401272-002	YL2401272-003	YL2401272-004	YL2401272-005
				Result	Result	Result	Result	Result
Total Metals Antimony, total	7440-36-0 E420/CG	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2 E420/CG	0.00010	mg/L	0.00481	0.00043	0.00010	0.00040	0.00010
Barium, total	7440-38-2 E-420/CG 7440-39-3 E420/CG	0.00010	mg/L	0.0209	0.0043	0.0041	0.00423	0.00520
Beryllium, total	7440-39-3 L-420/CG 7440-41-7 E420/CG	0.00010	_	<0.000100	<0.000100	<0.000100	<0.00423	<0.00320
Bismuth, total	7440-41-7 E-420/CG 7440-69-9 E420/CG	0.000100	mg/L mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Boron, total	7440-69-9 E-420/CG 7440-42-8 E420/CG	0.000030	mg/L	0.012	<0.010	0.013	0.012	0.012
Cadmium, total	7440-42-6 E-420/CG	0.0000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Calcium, total	7440-45-9 E-420/CG 7440-70-2 E420/CG	0.050	mg/L	23.5	12.5	12.1	12.0	12.6
Cesium, total	7440-70-2 E-420/CG	0.000010	mg/L	0.000054	<0.00010	<0.000010	<0.000010	<0.000010
Chromium, total	7440-46-2 E-420/CG	0.00050	mg/L	0.00090	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-47-3 E-120/CG	0.00000	mg/L	0.00132	<0.00010	<0.00010	<0.00010	<0.00010
Copper, total	7440-50-8 E420/CG	0.00010	mg/L	0.00154	0.00050	<0.00070	<0.00050	0.00055
Iron, total	7439-89-6 E420/CG	0.010	mg/L	0.321	<0.010	<0.010	<0.010	<0.010
Lead, total	7439-09-0 E-120/CG	0.000050	mg/L	0.000089	<0.00050	<0.00050	<0.00050	<0.00050
Lithium, total	7439-93-2 E420/CG	0.0010	mg/L	0.0079	0.0018	0.0016	0.0014	0.0016
Magnesium, total	7439-95-4 E420/CG	0.0050	mg/L	8.20	3.04	3.05	2.97	3.15
Manganese, total	7439-96-5 E420/CG	0.00010	mg/L	0.119	0.00372	0.00300	0.00220	0.00283
Mercury, total	7439-97-6 E508/CG	0.0000050	mg/L	<0.0000050	<0.000050	<0.000050	<0.000050	<0.0000050
Molybdenum, total	7439-98-7 E420/CG	0.000050	mg/L	0.000072	0.000096	0.000094	0.000092	0.000169
Nickel, total	7440-02-0 E420/CG	0.00050	mg/L	0.00912	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus, total	7723-14-0 E420/CG	0.050	mg/L	0.062	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7 E420/CG	0.050	mg/L	2.93	1.55	1.54	1.53	1.55
Rubidium, total	7440-17-7 E420/CG	0.00020	mg/L	0.00471	0.00207	0.00209	0.00199	0.00212
Selenium, total	7782-49-2 E420/CG	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Silicon, total	7440-21-3 E420/CG	0.10	mg/L	0.84	0.16	0.14	0.13	0.35
Silver, total	7440-22-4 E420/CG	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5 E420/CG	0.050	mg/L	5.94	2.42	2.43	2.41	2.36
Strontium, total	7440-24-6 E420/CG	0.00020	mg/L	0.116	0.0484	0.0467	0.0468	0.0514
Sulfur, total	7704-34-9 E420/CG	0.50	mg/L	4.16	2.86	2.76	2.80	3.01
Tellurium, total	13494-80-9 E420/CG	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020

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Total Metals Thallium, total 74 Thorium, total 74 Tin, total 74 Titanium, total 74	0-28-0 E420/CG 0-29-1 E420/CG 0-31-5 E420/CG 0-32-6 E420/CG 0-33-7 E420/CG 0-61-1 E420/CG		Iing date / time Unit mg/L mg/L mg/L	3-015 22-Aug-2024 09:30 YL2401272-001 Result <0.000010 <0.00010	3-016 22-Aug-2024 10:10 YL2401272-002 Result <0.000010 <0.00010	3-017 22-Aug-2024 10:45 YL2401272-003 Result <0.000010	3-014 22-Aug-2024 11:15 YL2401272-004 Result <0.000010	3-009 22-Aug-2024 12:00 YL2401272-005 Result
Total Metals Thallium, total 74 Thorium, total 74 Tin, total 74 Titanium, total 74	0-28-0 E420/CG 0-29-1 E420/CG 0-31-5 E420/CG 0-32-6 E420/CG 0-33-7 E420/CG	0.000010 0.00010 0.00010 0.00030	Unit mg/L mg/L mg/L	09:30 YL2401272-001 Result <0.000010 <0.00010	10:10 YL2401272-002 Result	10:45 YL2401272-003 Result <0.000010	11:15 YL2401272-004 Result	12:00 YL2401272-005 Result
Total Metals Thallium, total 74 Thorium, total 74 Tin, total 74 Titanium, total 74	0-28-0 E420/CG 0-29-1 E420/CG 0-31-5 E420/CG 0-32-6 E420/CG 0-33-7 E420/CG	0.000010 0.00010 0.00010 0.00030	mg/L mg/L mg/L	Result <0.000010 <0.00010	Result <0.000010	Result <0.000010	Result	Result
Thallium, total 74 Thorium, total 74 Tin, total 74 Titanium, total 74	0-29-1 E420/CG 0-31-5 E420/CG 0-32-6 E420/CG 0-33-7 E420/CG	0.00010 0.00010 0.00030	mg/L mg/L	<0.000010 <0.00010	<0.000010	<0.000010		
Thallium, total 74 Thorium, total 74 Tin, total 74 Titanium, total 74	0-29-1 E420/CG 0-31-5 E420/CG 0-32-6 E420/CG 0-33-7 E420/CG	0.00010 0.00010 0.00030	mg/L mg/L	<0.00010			<0.000010	0.000040
Thorium, total 74 Tin, total 74 Titanium, total 74	0-29-1 E420/CG 0-31-5 E420/CG 0-32-6 E420/CG 0-33-7 E420/CG	0.00010 0.00010 0.00030	mg/L mg/L	<0.00010			<0.000010	ZO 000010
Tin, total 74 Titanium, total 74	0-31-5 E420/CG 0-32-6 E420/CG 0-33-7 E420/CG	0.00010 0.00030	mg/L		<0.00010	√ ∩ ∩∩∩1∩	<0.00010	<0.000010 <0.00010
Titanium, total 74	0-32-6 E420/CG 0-33-7 E420/CG	0.00030	_	<0.00010	<0.00010	<0.00010 <0.00010	<0.00010	<0.00010
	0-33-7 E420/CG			<0.00010				<0.00010
			mg/L	0.0120	<0.00030	<0.00030	<0.00030	
	0-61-1 E420/CG		mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
		0.000010	mg/L	0.000073	0.000097	0.000098	0.000095	0.000157
	0-62-2 E420/CG	0.00050	mg/L	0.00087	<0.00050	<0.00050	<0.00050	<0.00050
	0-66-6 E420/CG	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
	0-67-7 E420/CG	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	E404/00	0.050		00.0	40.0	44.0	40.4	40.0
	0-70-2 E421/CG	0.050	mg/L	22.3	12.0	11.9	12.1	12.6
	9-95-4 E421/CG	0.0050	mg/L	7.94	3.06	3.13	2.99	3.10
	0-09-7 E421/CG	0.050	mg/L	2.68	1.50	1.49	1.50	1.52
	0-23-5 E421/CG	0.050	mg/L	5.91	2.41	2.38	2.37	2.38
Dissolved metals filtration location	EP421/CG	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [BTEXS+MTBE]	- - - - - - - - -	0.50	"	-0.50	-0.50	*0.50	-0.50	-0.50
	1-43-2 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
· -	0-41-4 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
	8-88-3 E611A/CG	0.50	μg/L 	<0.50	<0.50	<0.50	<0.50	<0.50
	1-23-1 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
- ·	5-47-6 E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
	0-20-7 E611A/CG	0.75	μg/L	<0.75	<0.75	<0.75	<0.75	<0.75
BTEX, total	E611A/CG	1.2	μg/L	<1.2	<1.2	<1.2	<1.2	<1.2
Hydrocarbons								
F1 (C6-C10)	E581.F1/CG	100	μg/L	<100	<100	<100	<100	<100
F1-BTEX	EC580/CG	100	μg/L	<100	<100	<100	<100	<100
F2 (C10-C16)	E601/CG	100	μg/L	<100	<100	<100	<100	<100
F3 (C16-C34)	E601/CG	250	μg/L	<250	<250	<250	<250	<250
F4 (C34-C50)	E601/CG	250	μg/L	<250	<250	<250	<250	<250
Hydrocarbons, total (C6-C50)	n/a EC581/CG	400	μg/L	<400	<400	<400	<400	<400

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					3-015	3-016	3-017	3-014	3-009
			Client samp	ling date / time	22-Aug-2024 09:30	22-Aug-2024 10:10	22-Aug-2024 10:45	22-Aug-2024 11:15	22-Aug-2024 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401272-001	YL2401272-002	YL2401272-003	YL2401272-004	YL2401272-005
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	96.2	89.8	92.0	90.0	88.0
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	89.8	78.4	89.4	86.6	96.4
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	92.0	93.6	92.4	91.0	92.9
Difluorobenzene, 1,4-	540-36-3	611A/CG	1.0	%	104	105	103	105	104

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

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

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					3-020	3-022	3-023	
			Client samp	ling date / time	22-Aug-2024 12:00	22-Aug-2024 12:15	22-Aug-2024 12:20	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401272-006	YL2401272-007	YL2401272-008	
					Result	Result	Result	
Physical Tests	le l	-000/00	1.0		40.2			
Alkalinity, bicarbonate (as CaCO3)		E290/CG	1.0	mg/L	49.3			
Alkalinity, carbonate (as CaCO3)	l.	E290/CG	1.0	mg/L	<1.0			
Alkalinity, hydroxide (as CaCO3)		E290/CG	1.0	mg/L	<1.0			
Alkalinity, phenolphthalein (as CaCO3)		E290/CG	1.0	mg/L	<1.0			
Alkalinity, total (as CaCO3)		E290/CG	1.0	mg/L	49.3			
Conductivity		E100/CG	2.0	μS/cm	102			
Hardness (as CaCO3), from total Ca/Mg		EC100A/CG	0.60	mg/L	46.0			
pH		E108/CG	0.10	pH units	7.97			
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	64.5			
Solids, total suspended [TSS]		E160-L/CG	1.0	mg/L	<1.0			
Hardness (as CaCO3), dissolved	E	EC100/CG	0.50	mg/L	45.7			
Anions and Nutrients								
Ammonia, total (as N)	7664-41-7 ^E	E298/CG	0.0050	mg/L	0.0193			
Chloride	16887-00-6 E	E235.CI/CG	0.50	mg/L	1.43			
Nitrate (as N)	14797-55-8 E	E235.NO3-L/C G	0.0050	mg/L	<0.0050			
Nitrate (as NO3)		EC235.NO3A/ CG	0.010	mg/L	<0.022			
Nitrate + Nitrite (as N)	E	EC235.N+N/C G	0.0050	mg/L	<0.0051			
Nitrite (as N)	14797-65-0 E	E235.NO2-L/C G	0.0010	mg/L	<0.0010			
Nitrite (as NO2)	14797-65-0 E	EC235.NO2A/ CG	0.0030	mg/L	<0.0033			
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/CG	0.0010	mg/L	0.0013 HTA			
Phosphorus, total	7723-14-0 E		0.0020	mg/L	0.0045			
Sulfate (as SO4)	14808-79-8 E	E235.SO4/CG	0.30	mg/L	8.02			
Organic / Inorganic Carbon								
Carbon, total organic [TOC]	E	E355-L/CG	0.50	mg/L	3.70			
Total Metals								
Aluminum, total	7429-90-5 E	E420/CG	0.0030	mg/L	0.0102			

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)				3-020	3-022	3-023	
		Client samp	ling date / time	22-Aug-2024 12:00	22-Aug-2024 12:15	22-Aug-2024 12:20	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401272-006	YL2401272-007	YL2401272-008	
				Result	Result	Result	
Total Metals	T. (a a a T. (20 / C C	0.00040		10.00040			
Antimony, total	7440-36-0 E420/CG	0.00010	mg/L	<0.00010			
Arsenic, total	7440-38-2 E420/CG	0.00010	mg/L	0.00074			
Barium, total	7440-39-3 E420/CG	0.00010	mg/L	0.00545			
Beryllium, total	7440-41-7 E420/CG	0.000100	mg/L	<0.000100			
Bismuth, total	7440-69-9 E420/CG	0.000050	mg/L	<0.000050			
Boron, total	7440-42-8 E420/CG	0.010	mg/L	0.012			
Cadmium, total	7440-43-9 E420/CG	0.0000050	mg/L	<0.0000050			
Calcium, total	7440-70-2 E420/CG	0.050	mg/L	13.2			
Cesium, total	7440-46-2 E420/CG	0.000010	mg/L	<0.000010			
Chromium, total	7440-47-3 E420/CG	0.00050	mg/L	<0.00050			
Cobalt, total	7440-48-4 E420/CG	0.00010	mg/L	<0.00010			
Copper, total	7440-50-8 E420/CG	0.00050	mg/L	0.00056			
Iron, total	7439-89-6 E420/CG	0.010	mg/L	<0.010			
Lead, total	7439-92-1 E420/CG	0.000050	mg/L	<0.000050			
Lithium, total	7439-93-2 E420/CG	0.0010	mg/L	0.0017			
Magnesium, total	7439-95-4 E420/CG	0.0050	mg/L	3.16			
Manganese, total	7439-96-5 E420/CG	0.00010	mg/L	0.00282			
Mercury, total	7439-97-6 E508/CG	0.0000050	mg/L	0.0000063 RRV			
Molybdenum, total	7439-98-7 E420/CG	0.000050	mg/L	0.000184			
Nickel, total	7440-02-0 E420/CG	0.00050	mg/L	<0.00050			
Phosphorus, total	7723-14-0 E420/CG	0.050	mg/L	< 0.050			
Potassium, total	7440-09-7 E420/CG	0.050	mg/L	1.61			
Rubidium, total	7440-17-7 E420/CG	0.00020	mg/L	0.00216			
Selenium, total	7782-49-2 E420/CG	0.000050	mg/L	<0.000050			
Silicon, total	7440-21-3 E420/CG	0.10	mg/L	0.35			
Silver, total	7440-22-4 E420/CG	0.000010	mg/L	<0.000010			
Sodium, total	7440-23-5 E420/CG	0.050	mg/L	2.53			
Strontium, total	7440-24-6 E420/CG	0.00020	mg/L	0.0528			
Sulfur, total	7704-34-9 E420/CG	0.50	mg/L	2.98			
Tellurium, total	13494-80-9 E420/CG	0.00020	mg/L	<0.00020			
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Client

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Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					3-020	3-022	3-023	
				ling date / time	22-Aug-2024 12:00	22-Aug-2024 12:15	22-Aug-2024 12:20	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401272-006	YL2401272-007	YL2401272-008	
					Result	Result	Result	
Total Metals Thallium, total	7440-28-0 E420	0/CG	0.000010	mg/L	<0.000010			
Thorium, total	7440-29-1 E420		0.00010	mg/L	<0.00010			
Tin, total	7440-31-5 E420		0.00010	mg/L	<0.00010			
Titanium, total	7440-31-5 E420		0.00030	mg/L	<0.00010			
Tungsten, total	7440-33-7 E420		0.00010	mg/L	<0.00010			
Uranium, total	7440-61-1 E420		0.00010	mg/L	0.00016			
Vanadium, total	7440-62-2 E420		0.00050	mg/L	<0.00050			
Zinc, total	7440-66-6 E420		0.0030	mg/L	<0.0030			
Zirconium, total	7440-67-7 E420		0.00020	mg/L	<0.0000			
Dissolved Metals	7440-07-7	.0700	0.00020	IIIg/L	<0.00020			
Calcium, dissolved	7440-70-2 E42°	1/CG	0.050	mg/L	13.1			
Magnesium, dissolved	7439-95-4 E42°		0.0050	mg/L	3.16			
Potassium, dissolved	7440-09-7 E42°		0.050	mg/L	1.58			
Sodium, dissolved	7440-23-5 E42°		0.050	mg/L	2.50			
Dissolved metals filtration location		121/CG	-	-	Field			
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2 E61°	1A/CG	0.50	μg/L	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4 E61	1A/CG	0.50	μg/L	<0.50	<0.50	<0.50	
Toluene	108-88-3 E61 ⁻		0.50	μg/L	<0.50	<0.50	<0.50	
Xylene, m+p-	179601-23-1 E61		0.50	μg/L	<0.50	<0.50	<0.50	
Xylene, o-	95-47-6 E61		0.50	μg/L	<0.50	<0.50	<0.50	
Xylenes, total	1330-20-7 E61		0.75	μg/L	<0.75	<0.75	<0.75	
BTEX, total	E61 ⁻		1.2	μg/L	<1.2	<1.2	<1.2	
Hydrocarbons								
F1 (C6-C10)	E58 ⁻	1.F1/CG	100	μg/L	<100	<100	<100	
F1-BTEX	EC5	580/CG	100	μg/L	<100	<100	<100	
F2 (C10-C16)	E60 ⁻	1/CG	100	μg/L	<100	<100	<100	
F3 (C16-C34)	E60°	1/CG	250	μg/L	<250	<250	<250	
F4 (C34-C50)	E60 ⁻		250	μg/L	<250	<250	<250	
Hydrocarbons, total (C6-C50)	n/a EC5	581/CG	400	μg/L	<400	<400	<400	
ı	ı							

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					3-020	3-022	3-023	
			Client samp	ling date / time	22-Aug-2024 12:00	22-Aug-2024 12:15	22-Aug-2024 12:20	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401272-006	YL2401272-007	YL2401272-008	
					Result	Result	Result	
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	95.7	98.3	95.4	
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	93.3	94.3	93.2	
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	91.9	90.2	89.8	
Difluorobenzene, 1,4-	540-36-3 E	611A/CG	1.0	%	104	102	104	

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : **YL2401272** Page : 1 of 22

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address :4910 53 Street Address :314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone :---- Telephone : 1 867 445 7143

Project : Gordon Lake - Phase 1 LTMP - Water Date Samples Received : 23-Aug-2024 10:43

PO : ---- Issue Date : 30-Aug-2024 18:10

C-O-C number : ---Sampler : ---Site :

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received :8
No. of samples analysed :8

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

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.

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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					Ev	aluation: × =	Holding time excee	edance ; •	= Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pre	paration		Analysis		sis	
Container / Client Sample ID(s)			Preparation	Holding		Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-009	E298	22-Aug-2024	27-Aug-2024		5 days	✓	27-Aug-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-014	E298	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)		T								
GLG-2024-00003-015	E298	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-016	E298	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00003-017	E298	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)		T								
GLG-2024-00003-020	E298	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
				days			-	-	-	
Anions and Nutrients : Chloride in Water by IC				,						
HDPE										
GLG-2024-00003-009	E235.CI	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 davs	✓
				days	, 5				,, .	
				aayo						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						diddion. • -	Holding time exce	oddilloo , ·	***************************************	Tiolding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00003-014	E235.CI	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00003-015	E235.CI	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00003-016	E235.CI	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 days	✓
				days				-	-	
Anions and Nutrients : Chloride in Water by IC				,						
HDPE										
GLG-2024-00003-017	E235.CI	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 days	✓
020 2021 00000 011			207109 2021	days	,		2071.09 2021	20 00,0	. aayo	
Asiana and National and Oblavida in Water by 10				dayo						
Anions and Nutrients : Chloride in Water by IC HDPE				1	<u> </u>			<u> </u>		
GLG-2024-00003-020	E235.CI	22-Aug-2024	26-Aug-2024	28	4 days	√	26-Aug-2024	28 days	4 days	✓
010-2024-00000-020	2200.01	22-7 tag-202-	20-7 tug-202+	days	- days	,	207 tug 2024	20 days	4 days	·
	10001 (1)			days						
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Lo	evel 0.001 mg/L)				1		I			
GLG-2024-00003-009	E378-U	22-Aug-2024	26-Aug-2024	3 days	4 days	s:	26-Aug-2024	3 days	4 days	×
GLG-2024-00003-009	2070-0	227 lug-2024	20-Aug-2024	5 days	4 days	EHT	20-Aug-2024	Juays	4 days	EHT
						LIII				L111
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Lo	evel 0.001 mg/L)									
HDPE	E378-U	22 Aug 2024	26 Aug 2024	2 days	1 days	×	26 Aug 2024	2 days	4 days	×
GLG-2024-00003-014	E3/0-U	22-Aug-2024	26-Aug-2024	3 days	4 days	EHT	26-Aug-2024	3 days	4 uays	EHT
						ЕПІ				ЕПІ
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Lo	evel 0.001 mg/L)									
HDPE					. .					
GLG-2024-00003-015	E378-U	22-Aug-2024	26-Aug-2024	3 days	4 days	*	26-Aug-2024	3 days	4 days	3 0
						EHT				EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE										
GLG-2024-00003-016	E378-U	22-Aug-2024	26-Aug-2024	3 days	4 days	*	26-Aug-2024	3 days	4 days	*
						EHT				EHT

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr			J	Analys		Tiolding Time
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00003-017	E378-U	22-Aug-2024	26-Aug-2024	3 days	4 days	# EHT	26-Aug-2024	3 days	4 days	x EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
HDPE GLG-2024-00003-020	E378-U	22-Aug-2024	26-Aug-2024	3 days	4 days	* EHT	26-Aug-2024	3 days	4 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-009	E235.NO3-L	22-Aug-2024	26-Aug-2024	3 days	4 days	* EHT	26-Aug-2024	3 days	4 days	x EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-014	E235.NO3-L	22-Aug-2024	26-Aug-2024	3 days	4 days	* EHT	26-Aug-2024	3 days	4 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-015	E235.NO3-L	22-Aug-2024	26-Aug-2024	3 days	4 days	* EHT	26-Aug-2024	3 days	4 days	≭ EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-016	E235.NO3-L	22-Aug-2024	26-Aug-2024	3 days	4 days	* EHT	26-Aug-2024	3 days	4 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-017	E235.NO3-L	22-Aug-2024	26-Aug-2024	3 days	4 days	* EHT	26-Aug-2024	3 days	4 days	x EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00003-020	E235.NO3-L	22-Aug-2024	26-Aug-2024	3 days	4 days	* EHT	26-Aug-2024	3 days	4 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00003-009	E235.NO2-L	22-Aug-2024	26-Aug-2024	3 days	4 days	* EHT	26-Aug-2024	3 days	4 days	# EHT

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water		1				alaation.	Holding time exce			Troiding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GLG-2024-00003-014	E235.NO2-L	22-Aug-2024	26-Aug-2024	3 days	4 days	3C	26-Aug-2024	3 days	4 days	*
						EHT				EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GLG-2024-00003-015	E235.NO2-L	22-Aug-2024	26-Aug-2024	3 days	4 days	3C	26-Aug-2024	3 days	4 days	*
						EHT				EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GLG-2024-00003-016	E235.NO2-L	22-Aug-2024	26-Aug-2024	3 days	4 days	3e	26-Aug-2024	3 days	4 days	se
						EHT				EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE	1						I			
GLG-2024-00003-017	E235.NO2-L	22-Aug-2024	26-Aug-2024	3 days	4 days	*	26-Aug-2024	3 days	4 days	3 2
020 2021 00000 011			207.09 202.	o aayo	,	EHT	2071.09 2021	o dayo	. aayo	EHT
Anima and National and Nitrita in Water has 10 (Laurel and N										
Anions and Nutrients : Nitrite in Water by IC (Low Level) HDPE					I		<u> </u>			
GLG-2024-00003-020	E235.NO2-L	22-Aug-2024	26-Aug-2024	3 days	4 days	30	26-Aug-2024	3 days	4 days	*
GLG-2024-00003-020	L233.NO2-L	22-Aug-2024	20-Aug-2024	5 days	- days	EHT	20-Aug-2024	Juays	4 days	EHT
						L111				L111
Anions and Nutrients : Sulfate in Water by IC				1						
HDPE	E235.SO4	22-Aug-2024	00 4 0004	00	4 -1	√	00 4 0004	00 -1	4 -1	√
GLG-2024-00003-009	E235.5U4	22-Aug-2024	26-Aug-2024	28	4 days	•	26-Aug-2024	28 days	4 days	•
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE					. .					
GLG-2024-00003-014	E235.SO4	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00003-015	E235.SO4	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC				<u> </u>						
HDPE										
	E235.SO4	22-Aug-2024	26-Aug-2024	28	4 days	1	26-Aug-2024	28 days	4 days	✓
GLG-2024-00003-016	L233.004	22-Aug-2024	20-Aug-2024	20	- uuyo		20 / lug 202 l	20 dayo	1 days	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Analyte Group : Analytical Method										
	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00003-017	E235.SO4	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00003-020	E235.SO4	22-Aug-2024	26-Aug-2024	28	4 days	✓	26-Aug-2024	28 days	4 days	✓
				days					-	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00003-009	E372-U	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
		Ĭ	, and the second	days	,		Ĭ		,	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)				<u> </u>						
GLG-2024-00003-014	E372-U	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	√
GEG-2024-00000-014	2072 0	22 / tag 202 i	20-7 tug-2024	days	o days	·	207 tug-2024	20 days	o days	,
				uays						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)				T				I		
Amber glass total (sulfuric acid) GLG-2024-00003-015	E372-U	22-Aug-2024	28-Aug-2024	00	6 days	✓	28-Aug-2024	28 days	6 days	✓
GLG-2024-00003-015	E372-0	22-Aug-2024	20-Aug-2024	28	0 uays	•	20-Aug-2024	20 uays	0 uays	•
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)	E070 II					,				,
GLG-2024-00003-016	E372-U	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00003-017	E372-U	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00003-020	E372-U	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
				days						
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00003-009	E421	22-Aug-2024	27-Aug-2024	180	5 days	✓	28-Aug-2024	180	6 days	✓
		1		1	1			1		

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water

Evaluation: **x** = Holding time exceedance ; ✓ = Within Holding Time

							Holding time exce			
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00003-014	E421	22-Aug-2024	27-Aug-2024	180	5 days	✓	28-Aug-2024	180	6 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00003-015	E421	22-Aug-2024	27-Aug-2024	180	5 days	✓	28-Aug-2024	180	6 days	✓
				days	-		-	days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS								,		
HDPE - dissolved (lab preserved)				<u> </u>						
GLG-2024-00003-016	E421	22-Aug-2024	27-Aug-2024	180	5 days	√	28-Aug-2024	180	6 days	1
010 101 10000 010				days	, -			days	J, -	
Discolard Matela a Discolard Matela in Water has ODO JODNO				dayo				dayo		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS HDPE - dissolved (lab preserved)				1			I			
GLG-2024-00003-017	E421	22-Aug-2024	27-Aug-2024	180	5 days	✓	28-Aug-2024	180	6 days	✓
GLG-2024-00003-017	L721	227 tug-2024	21-Aug-2024	days	5 days	Ť	20-Aug-2024	days	0 days	•
				uays				uays		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS				T					1	
HDPE - dissolved (lab preserved)	E404	00 4 0004	07 4 2024		E dave	√	00 4 0004		C -l	√
GLG-2024-00003-020	E421	22-Aug-2024	27-Aug-2024	180	5 days	•	28-Aug-2024	180	6 days	•
				days				days		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)						,				
GLG-2024-00003-009	E581.F1	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00003-014	E581.F1	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00003-015	E581.F1	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00003-016	E581.F1	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
GLG-2024-00003-010										

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

										Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00003-017	E581.F1	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00003-020	E581.F1	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00003-022	E581.F1	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00003-023	E581.F1	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00003-009	E601	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	40 days	0 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00003-014	E601	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	40 days	0 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00003-015	E601	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	40 days	0 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID								l e		
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00003-016	E601	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	40 days	0 days	✓
			-	days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
- + + + + + + + + + + + + + + + + + + +	I			I	l		07 4 0004	40 1	0.1	✓
GLG-2024-00003-017	E601	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	40 days	u days	▼

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Client



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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00003-020	E601	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	40 days	0 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID				days						
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00003-022	E601	22-Aug-2024	27-Aug-2024	14 days	5 days	√	27-Aug-2024	40 days	0 days	√
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) GLG-2024-00003-023	E601	22-Aug-2024	27-Aug-2024	14 days	5 days	✓	27-Aug-2024	40 days	0 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00003-009	E355-L	22-Aug-2024	27-Aug-2024	28 days	5 days	*	27-Aug-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00003-014	E355-L	22-Aug-2024	27-Aug-2024	28 days	5 days	*	27-Aug-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00003-015	E355-L	22-Aug-2024	27-Aug-2024	28 days	5 days	1	27-Aug-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00003-016	E355-L	22-Aug-2024	27-Aug-2024	28 days	5 days	4	27-Aug-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00003-017	E355-L	22-Aug-2024	27-Aug-2024	28 days	5 days	*	27-Aug-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00003-020	E355-L	22-Aug-2024	27-Aug-2024	28 days	5 days	✓	27-Aug-2024	28 days	5 days	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						/aluation. × –	Holding time exce			Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-009	E290	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	14 days	5 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-014	E290	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	14 days	5 days	✓
				days						
Physical Tests : Alkalinity Species by Titration				_						
HDPE										
GLG-2024-00003-015	E290	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	14 days	5 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-016	E290	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	14 days	5 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-017	E290	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	14 days	5 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00003-020	E290	22-Aug-2024	27-Aug-2024	14	5 days	✓	27-Aug-2024	14 days	5 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-009	E100	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
			-	days						
Physical Tests : Conductivity in Water								1		
HDPE										
GLG-2024-00003-014	E100	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
			Ĭ	days					,	
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-015	E100	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 davs	✓
		J		days	,5				, 0	
				aays						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water Evaluation: × = Holding time exceedance: √ = Within Holding Time

Matrix: Water	Evaluation: × =									
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-016	E100	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-017	E100	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00003-020	E100	22-Aug-2024	27-Aug-2024	28	5 days	✓	27-Aug-2024	28 days	5 days	✓
				days						
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00003-009	E108	22-Aug-2024	27-Aug-2024	0.25	115 hrs	×	27-Aug-2024	0.25	115 hrs	×
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00003-020	E108	22-Aug-2024	27-Aug-2024	0.25	115 hrs	*	27-Aug-2024	0.25	115 hrs	*
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00003-014	E108	22-Aug-2024	27-Aug-2024	0.25	116 hrs	*	27-Aug-2024	0.25	116 hrs	3¢
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00003-017	E108	22-Aug-2024	27-Aug-2024	0.25	116 hrs	*	27-Aug-2024	0.25	116 hrs	*
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00003-016	E108	22-Aug-2024	27-Aug-2024	0.25	117 hrs	3 2	27-Aug-2024	0.25	117 hrs	3¢
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : pH by Meter				'						
HDPE										
GLG-2024-00003-015	E108	22-Aug-2024	27-Aug-2024	0.25	118 hrs	×	27-Aug-2024	0.25	118 hrs	×
	1	1		hrs	1	EHTR-FM	l	hrs		EHTR-FM

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water								tion: × = Holding time exceedance ; ∨ = Within Holding				
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	reparation			Analys	sis			
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval		
			Date	Rec	Actual			Rec	Actual			
Physical Tests : TDS by Gravimetry (Low Level)												
HDPE												
GLG-2024-00003-009	E162-L	22-Aug-2024					29-Aug-2024	7 days	7 days	✓		
Physical Tests : TDS by Gravimetry (Low Level)												
HDPE												
GLG-2024-00003-014	E162-L	22-Aug-2024					29-Aug-2024	7 days	7 days	✓		
								,				
Physical Tests : TDS by Gravimetry (Low Level)												
HDPE							I					
GLG-2024-00003-015	E162-L	22-Aug-2024					29-Aug-2024	7 days	7 days	✓		
010 101 100000 010								, -	, -			
Dhariast Tasks (TDO by Considerator (Land Land))												
Physical Tests : TDS by Gravimetry (Low Level) HDPE							<u> </u>					
GLG-2024-00003-016	E162-L	22-Aug-2024					29-Aug-2024	7 days	7 days	✓		
GLG-2024-00003-010	L 102-L	22-Aug-2024					29-Aug-2024	/ uays	1 days	•		
Physical Tests : TDS by Gravimetry (Low Level)				I	I							
HDPE	E162-L	22 Aug 2024					20 Aug 2024	7 days	7 days	✓		
GLG-2024-00003-017	E102-L	22-Aug-2024					29-Aug-2024	7 days	7 days	•		
Physical Tests : TDS by Gravimetry (Low Level)												
HDPE	E400.1									,		
GLG-2024-00003-020	E162-L	22-Aug-2024					29-Aug-2024	7 days	7 days	✓		
Physical Tests : TSS by Gravimetry (Low Level)												
HDPE [TSS-WB]										_		
GLG-2024-00003-009	E160-L	22-Aug-2024					27-Aug-2024	7 days	5 days	✓		
Physical Tests : TSS by Gravimetry (Low Level)												
HDPE [TSS-WB]												
GLG-2024-00003-014	E160-L	22-Aug-2024					27-Aug-2024	7 days	5 days	✓		
Physical Tests : TSS by Gravimetry (Low Level)												
HDPE [TSS-WB]												
GLG-2024-00003-015	E160-L	22-Aug-2024					27-Aug-2024	7 days	5 days	✓		
							_		,			
	1											

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						aluation: 🗴 =		,		
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	reparation					
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	ling Times Eva	
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-016	E160-L	22-Aug-2024					27-Aug-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-017	E160-L	22-Aug-2024					27-Aug-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00003-020	E160-L	22-Aug-2024					27-Aug-2024	7 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00003-009	E508	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00003-014	E508	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00003-015	E508	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00003-016	E508	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS									'	
Glass vial total (hydrochloric acid)										
GLG-2024-00003-017	E508	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00003-020	E508	22-Aug-2024	28-Aug-2024	28	6 days	✓	28-Aug-2024	28 days	6 days	✓
	1			days	1		I	I	1	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						- Caracaca Corn.	Holding time excee	,,		
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation					
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-009	E420	22-Aug-2024	28-Aug-2024	180	6 days	✓	28-Aug-2024	180	6 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00003-014	E420	22-Aug-2024	28-Aug-2024	180	6 days	✓	28-Aug-2024	180	6 days	✓
				days	-		-	days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)				<u> </u>			<u> </u>			
GLG-2024-00003-015	E420	22-Aug-2024	28-Aug-2024	180	6 days	1	28-Aug-2024	180	6 days	✓
		J ·	3 3	days	,		3 1	days		
Total Metals : Total Metals in Water by CRC ICPMS				,-						
HDPE - total (lab preserved)				<u> </u>						
GLG-2024-00003-016	E420	22-Aug-2024	28-Aug-2024	180	6 days	✓	28-Aug-2024	180	6 days	✓
020-2024-00000-010	2.20	22 / lag 202 i	207 tug 2024	days	o days		20-7 tug-202-	days	o days	•
				uays				uays		
Total Metals : Total Metals in Water by CRC ICPMS				T			1	<u> </u>	1	
HDPE - total (lab preserved)	E420	22 Aug 2024	20 4 2024	400	6 days	✓	20 4 2024	400	6 days	√
GLG-2024-00003-017	E420	22-Aug-2024	28-Aug-2024	180	6 days	•	28-Aug-2024	180	6 days	•
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)	E400	00.4				,				,
GLG-2024-00003-020	E420	22-Aug-2024	28-Aug-2024	180	6 days	✓	28-Aug-2024	180	6 days	✓
				days				days		
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-009	E611A	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00003-014	E611A	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS									<u> </u>	
Glass vial (sodium bisulfate)	T									
GLG-2024-00003-015	E611A	22-Aug-2024	28-Aug-2024	14	6 days	✓	28-Aug-2024	14 days	6 days	✓
				1	1		1	1	1 1	

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Client : Stantec Consulting Ltd.

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

	Sampling Date	Preparation	Holding	Times	Eval	Ameliania Data			Eval
		'		ing Times Eval		Eval Analysis Date		Holding Times	
		Date	Rec	Actual			Rec	Actual	
					,				_
E611A	22-Aug-2024	28-Aug-2024		6 days	✓	28-Aug-2024	14 days	6 days	✓
			days						
E044A	00 4 000 1	00. 4 000.1		0.1		00.4000.4	44.1	0.1	,
E611A	22-Aug-2024	28-Aug-2024		6 days	*	28-Aug-2024	14 days	6 days	✓
			days						
E611A	22 Aug 2024	29 Aug 2024	4.4	6 days	./	20 Aug 2024	14 dovo	6 days	√
EOTTA	22-Aug-2024	20-Aug-2024		0 uays	,	26-Aug-2024	14 uays	0 days	•
			uays						
F611A	22-Aug-2024	28-Aug-2024	1/	6 days	1	28-Aug-2024	14 days	6 days	√
201171	22 / (ag 202 i	207 lug 2024		o days	,	20-7 (dg-202-	14 days	0 days	
			Jujo						
E611A	22-Aug-2024	28-Aug-2024	14	6 davs	✓	28-Aug-2024	14 davs	6 davs	✓
		- · · · · · · · · · · · · · · · · · · ·		,-		3 1 1 3 <u> </u>	,0	, -	
	E611A E611A E611A E611A	E611A 22-Aug-2024 E611A 22-Aug-2024 E611A 22-Aug-2024	E611A 22-Aug-2024 28-Aug-2024 E611A 22-Aug-2024 28-Aug-2024 E611A 22-Aug-2024 28-Aug-2024	E611A 22-Aug-2024 28-Aug-2024 14 days E611A 22-Aug-2024 28-Aug-2024 14 days E611A 22-Aug-2024 28-Aug-2024 14 days	E611A 22-Aug-2024 28-Aug-2024 14 6 days E611A 22-Aug-2024 28-Aug-2024 14 6 days ✓	E611A 22-Aug-2024 28-Aug-2024 14 6 days ✓ 28-Aug-2024 E611A 22-Aug-2024 28-Aug-2024 14 days E611A 22-Aug-2024 28-Aug-2024 14 days 6 days			

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).

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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 Quality Control Sample Type					ecification; ✓ = 0	<u> </u>	
Analytical Methods	Method	QC Lot #	QC	ount Regular	Actual	Frequency (%) Expected	Evaluation
Laboratory Duplicates (DUP)						, , , , , ,	
Alkalinity Species by Titration	E290	1617775	1	20	5.0	5.0	1
Ammonia by Fluorescence	E298	1619013	1	20	5.0	5.0	1
BTEX by Headspace GC-MS	E611A	1621003	1	20	5.0	5.0	1
CCME PHC - F1 by Headspace GC-FID	E581.F1	1621004	1	11	9.0	5.0	√
Chloride in Water by IC	E235.Cl	1617168	1	7	14.2	5.0	√
Conductivity in Water	E100	1617773	1	20	5.0	5.0	√
Dissolved Metals in Water by CRC ICPMS	E421	1618527	1	15	6.6	5.0	1
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1617017	1	12	8.3	5.0	1
Nitrate in Water by IC (Low Level)	E235.NO3-L	1617165	2	24	8.3	5.0	1
Nitrite in Water by IC (Low Level)	E235.NO2-L	1617166	2	24	8.3	5.0	1
pH by Meter	E108	1617774	1	20	5.0	5.0	1
Sulfate in Water by IC	E235.SO4	1617167	2	24	8.3	5.0	1
TDS by Gravimetry (Low Level)	E162-L	1624617	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1619344	1	9	11.1	5.0	1
Total Metals in Water by CRC ICPMS	E420	1618530	1	12	8.3	5.0	1
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1619915	1	20	5.0	5.0	1
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1618200	1	16	6.2	5.0	1
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1617775	1	20	5.0	5.0	1
Ammonia by Fluorescence	E298	1619013	1	20	5.0	5.0	1
BTEX by Headspace GC-MS	E611A	1621003	1	20	5.0	5.0	√
CCME PHC - F1 by Headspace GC-FID	E581.F1	1621004	1	11	9.0	5.0	1
CCME PHCs - F2-F4 by GC-FID	E601	1618675	1	8	12.5	5.0	✓
Chloride in Water by IC	E235.CI	1617168	1	7	14.2	5.0	1
Conductivity in Water	E100	1617773	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1618527	1	15	6.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1617017	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1617165	2	24	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1617166	2	24	8.3	5.0	✓
pH by Meter	E108	1617774	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1617167	2	24	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1624617	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1619344	1	9	11.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1618530	1	12	8.3	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1619915	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1618200	1	16	6.2	5.0	1

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Client



Matrix: Water	Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.									
Quality Control Sample Type				ount		Frequency (%)				
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation			
Laboratory Control Samples (LCS) - Continued										
TSS by Gravimetry (Low Level)	E160-L	1616996	1	20	5.0	5.0	✓			
Method Blanks (MB)										
Alkalinity Species by Titration	E290	1617775	1	20	5.0	5.0	✓			
Ammonia by Fluorescence	E298	1619013	1	20	5.0	5.0	✓			
BTEX by Headspace GC-MS	E611A	1621003	1	20	5.0	5.0	✓			
CCME PHC - F1 by Headspace GC-FID	E581.F1	1621004	1	11	9.0	5.0	✓			
CCME PHCs - F2-F4 by GC-FID	E601	1618675	1	8	12.5	5.0	✓			
Chloride in Water by IC	E235.CI	1617168	1	7	14.2	5.0	✓			
Conductivity in Water	E100	1617773	1	20	5.0	5.0	✓			
Dissolved Metals in Water by CRC ICPMS	E421	1618527	1	15	6.6	5.0	✓			
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1617017	1	12	8.3	5.0	✓			
Nitrate in Water by IC (Low Level)	E235.NO3-L	1617165	2	24	8.3	5.0	✓			
Nitrite in Water by IC (Low Level)	E235.NO2-L	1617166	2	24	8.3	5.0	✓			
Sulfate in Water by IC	E235.SO4	1617167	2	24	8.3	5.0	✓			
TDS by Gravimetry (Low Level)	E162-L	1624617	1	7	14.2	5.0	✓			
Total Mercury in Water by CVAAS	E508	1619344	1	9	11.1	5.0	✓			
Total Metals in Water by CRC ICPMS	E420	1618530	1	12	8.3	5.0	✓			
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1619915	1	20	5.0	5.0	✓			
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1618200	1	16	6.2	5.0	✓			
TSS by Gravimetry (Low Level)	E160-L	1616996	1	20	5.0	5.0	✓			
Matrix Spikes (MS)										
Ammonia by Fluorescence	E298	1619013	1	20	5.0	5.0	✓			
BTEX by Headspace GC-MS	E611A	1621003	1	20	5.0	5.0	✓			
Chloride in Water by IC	E235.CI	1617168	1	7	14.2	5.0	✓			
Dissolved Metals in Water by CRC ICPMS	E421	1618527	1	15	6.6	5.0	✓			
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1617017	1	12	8.3	5.0	✓			
Nitrate in Water by IC (Low Level)	E235.NO3-L	1617165	2	24	8.3	5.0	✓			
Nitrite in Water by IC (Low Level)	E235.NO2-L	1617166	2	24	8.3	5.0	✓			
Sulfate in Water by IC	E235.SO4	1617167	2	24	8.3	5.0	✓			
Total Mercury in Water by CVAAS	E508	1619344	1	9	11.1	5.0	✓			
Total Metals in Water by CRC ICPMS	E420	1618530	1	12	8.3	5.0	✓			
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1619915	1	20	5.0	5.0	✓			
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1618200	1	16	6.2	5.0	✓			

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Calgary			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Calgary			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Calgary			brackish waters) may produce a positive bias by this method. Alternate analysis
				methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			
Chloride in Water by IC	E235.Cl	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Calgary			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Calgary			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Calgary			
Sulfate in Water by IC	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Calgary			
Alkalinity Species by Titration	E290	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Calgary			
	<u> </u>		_	

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Method / Lab	Matrix	Method Reference	Method Descriptions
E298 ALS Environmental - Calgary	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)
E355-L ALS Environmental - Calgary	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
E372-U ALS Environmental - Calgary	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
E378-U ALS Environmental - Calgary	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
E420 ALS Environmental - Calgary	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.
E421 ALS Environmental - Calgary	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.
E508 ALS Environmental - Calgary	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
E581.F1 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met,
	E298 ALS Environmental - Calgary E355-L ALS Environmental - Calgary E372-U ALS Environmental - Calgary E378-U ALS Environmental - Calgary E420 ALS Environmental - Calgary E421 ALS Environmental - Calgary E508 ALS Environmental - Calgary E508 ALS Environmental - Calgary E508 ALS Environmental - Calgary E581.F1 ALS Environmental -	E298 Water ALS Environmental - Calgary E355-L Water ALS Environmental - Calgary E372-U Water ALS Environmental - Calgary E378-U Water ALS Environmental - Calgary E420 Water ALS Environmental - Calgary E421 Water ALS Environmental - Calgary E508 Water ALS Environmental - Calgary E508 Water ALS Environmental - Calgary E508 Water ALS Environmental - Calgary E581.F1 Water	E298 Water Method Fialab 100, 2018 ALS Environmental - Calgary E355-L Water APHA 5310 B (mod) E372-U Water APHA 4500-P E (mod). ALS Environmental - Calgary E378-U Water APHA 4500-P F (mod) ALS Environmental - Calgary E420 Water EPA 200.2/6020B (mod) ALS Environmental - Calgary E421 Water APHA 3030B/EPA 6020B (mod) ALS Environmental - Calgary E508 Water EPA 1631E (mod) ALS Environmental - Calgary E581.F1 Water CCME PHC in Soil - Tier 1

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
	ALS Environmental - Calgary			Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A ALS Environmental - Calgary	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Calgary	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 ALS Environmental - Calgary	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.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Calgary	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Nitrite (as N) converted to Nitrite (as NO2)	EC235.NO2A ALS Environmental - Calgary	Water	Calculation	Nitrite by IC measured as N is converted to the NO2 form by calculation.
Nitrate (as N) converted to Nitrate (as NO3)	EC235.NO3A ALS Environmental - Calgary	Water	Calculation	Nitrate by IC measured as N is converted to the NO3 form by calculation.
F1-BTEX	EC580 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
Sum F1 to F4 (C6-C50)	EC581 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

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Client



Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALS Environmental -			
	Calgary			
Preparation for Total Organic Carbon by	EP355	Water		Preparation for Total Organic Carbon by Combustion
Combustion				
	ALS Environmental -			
	Calgary			
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental -			
	Calgary			
Dissolved Metals Water Filtration	EP421	Water	АРНА 3030В	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental -			
	Calgary			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the
	ALS Environmental -			GC/MS-FID system.
	Calgary			·
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
	ALS Environmental -			
	Calgary			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order Page :YL2401272 : 1 of 14

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

: Oliver Gregg Address Address :4910 53 Street

Account Manager :314 Old Airport Road, Unit 116 Yellowknife NT Canada X1A 2P4

Yellowknife, Northwest Territories Canada X1A 3T3 Telephone :1 867 445 7143

Date Samples Received :23-Aug-2024 10:43

> **Date Analysis Commenced** : 26-Aug-2024

Issue Date :30-Aug-2024 18:10

Telephone

Project : Gordon Lake - Phase 1 LTMP - Water

C-O-C number Sampler Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

: Natalie Normandeau

No. of samples received : 8 No. of samples analysed : 8

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

Contact

PO

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
Eunice Cura	Lab Analyst	Calgary Inorganics, Calgary, Alberta
George Huang	Supervisor - Inorganic	Calgary Metals, Calgary, Alberta
Gurvinder Kour	Lab Assistant	Calgary Metals, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta
Joshua Stessun	Laboratory Analyst	Calgary Organics, Calgary, Alberta
Jyotsnarani Devi	Laboratory Analyst	Calgary Organics, Calgary, Alberta
Katarzyna Glinka	Analyst	Calgary Inorganics, Calgary, Alberta
Kevin Baxter	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta
Kevin Baxter	Team Leader - Inorganics	Calgary Metals, Calgary, Alberta
Ruifang Zheng	Analyst	Calgary Inorganics, Calgary, Alberta
Shirley Li	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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.

Page : 3 of 14 Work Order : YL2401272

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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: 1617773)											
CG2412093-008	Anonymous	Conductivity		E100	2.0	μS/cm	2780	2890	3.88%	10%		
Physical Tests (QC	Lot: 1617774)											
CG2412093-008	Anonymous	рН		E108	0.10	pH units	7.25	7.29	0.550%	4%		
Physical Tests (QC	Lot: 1617775)											
CG2412093-008	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	533	555	3.98%	20%		
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR		
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR		
		Alkalinity, phenolphthalein (as		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR		
		CaCO3) Alkalinity, total (as CaCO3)		E290	1.0	mg/L	533	555	3.98%	20%		
Physical Tests (QC	Lot: 1624617)											
YL2401272-001	GLG-2024-00003-015	Solids, total dissolved [TDS]		E162-L	15.0	mg/L	173	168	2.94%	20%		
Anions and Nutrien	ts (QC Lot: 1617017)											
CG2412096-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0015	0.0021	0.0006	Diff <2x LOR		
Anions and Nutrien	ts (QC Lot: 1617165)											
CG2412092-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0500	mg/L	15.9	15.8	0.293%	20%		
Anions and Nutrien	ts (QC Lot: 1617166)											
CG2412092-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0100	mg/L	0.261	0.253	3.07%	20%		
Anions and Nutrien	ts (QC Lot: 1617167)											
CG2412092-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	3.00	mg/L	791	785	0.755%	20%		
Anions and Nutrien	ts (QC Lot: 1617168)											
YL2401273-001	Anonymous	Chloride	16887-00-6	E235.CI	5.00	mg/L	1550	1550	0.0812%	20%		
Anions and Nutrien	ts (QC Lot: 1617169)											
YL2401273-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	3.00	mg/L	970	969	0.0286%	20%		
Anions and Nutrien	ts (QC Lot: 1617170)											
YL2401273-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0500	mg/L	<0.0500	<0.0500	0	Diff <2x LOR		
Anions and Nutrien	ts (QC Lot: 1617171)											
YL2401273-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR		
Anions and Nutrien	ts (QC Lot: 1618200)											
CG2412050-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0136	0.0133	0.0004	Diff <2x LOR		
	1	_		<u> </u>								

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water							Labora	tory Duplicate (D	иР) кероп		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Anions and Nutrien	ts (QC Lot: 1619013)										
RG2401306-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.507	0.503	0.773%	20%	
Organic / Inorganic	Carbon (QC Lot: 16199	15)									
CG2412144-001	Anonymous	Carbon, total organic [TOC]		E355-L	0.50	mg/L	7.62	7.87	3.26%	20%	
Total Metals (QC Lo	ot: 1618530)										
YL2401273-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0150	mg/L	<0.0150	<0.0150	0	Diff <2x LOR	
		Antimony, total	7440-36-0	E420	0.00050	mg/L	0.0455	0.0460	1.26%	20%	
		Arsenic, total	7440-38-2	E420	0.00050	mg/L	20.3	20.5	0.704%	20%	
		Barium, total	7440-39-3	E420	0.00050	mg/L	0.0410	0.0416	1.70%	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	0.000250	mg/L	<0.000250	<0.000250	0	Diff <2x LOR	
		Boron, total	7440-42-8	E420	0.050	mg/L	0.357	0.362	0.005	Diff <2x LOR	
		Cadmium, total	7440-43-9	E420	0.0000250	mg/L	0.000300	0.000322	7.27%	20%	
		Calcium, total	7440-70-2	E420	0.250	mg/L	775	775	0.0285%	20%	
		Cesium, total	7440-46-2	E420	0.000050	mg/L	0.00111	0.00109	1.96%	20%	
		Chromium, total	7440-47-3	E420	0.00250	mg/L	<0.00250	<0.00250	0	Diff <2x LOR	
		Cobalt, total	7440-48-4	E420	0.00050	mg/L	0.162	0.164	1.26%	20%	
		Copper, total	7440-50-8	E420	0.00250	mg/L	0.0145	0.0145	0.000002	Diff <2x LOR	
		Iron, total	7439-89-6	E420	0.050	mg/L	23.1	23.2	0.495%	20%	
		Lead, total	7439-92-1	E420	0.000250	mg/L	0.00914	0.00918	0.444%	20%	
		Lithium, total	7439-93-2	E420	0.0050	mg/L	0.0604	0.0585	3.08%	20%	
		Magnesium, total	7439-95-4	E420	0.0250	mg/L	137	140	1.97%	20%	
		Manganese, total	7439-96-5	E420	0.00050	mg/L	3.74	3.78	1.25%	20%	
		Molybdenum, total	7439-98-7	E420	0.000250	mg/L	0.00828	0.00853	2.98%	20%	
		Nickel, total	7440-02-0	E420	0.00250	mg/L	0.103	0.105	1.79%	20%	
		Phosphorus, total	7723-14-0	E420	0.250	mg/L	<0.250	<0.250	0	Diff <2x LOR	
		Potassium, total	7440-09-7	E420	0.250	mg/L	13.2	13.2	0.452%	20%	
		Rubidium, total	7440-17-7	E420	0.00100	mg/L	0.0108	0.0109	1.18%	20%	
		Selenium, total	7782-49-2	E420	0.000250	mg/L	<0.000250	<0.000250	0	Diff <2x LOR	
		Silicon, total	7440-21-3	E420	0.50	mg/L	7.36	7.46	1.45%	20%	
		Silver, total	7440-22-4	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	
		Sodium, total	7440-23-5	E420	0.250	mg/L	396	399	0.956%	20%	
		Strontium, total	7440-24-6	E420	0.00100	mg/L	9.03	9.09	0.592%	20%	
		Sulfur, total	7704-34-9	E420	2.50	mg/L	364	369	1.46%	20%	
		Tellurium, total	13494-80-9	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water							Labora	tory Duplicate (D	UP) 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 Lo	ot: 1618530) - continued										
YL2401273-001	Anonymous	Thallium, total	7440-28-0	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	
		Thorium, total	7440-29-1	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	
		Tin, total	7440-31-5	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	
		Titanium, total	7440-32-6	E420	0.00150	mg/L	<0.00150	<0.00150	0	Diff <2x LOR	
		Tungsten, total	7440-33-7	E420	0.00050	mg/L	0.00113	0.00112	0.00001	Diff <2x LOR	
		Uranium, total	7440-61-1	E420	0.000050	mg/L	0.0147	0.0149	1.02%	20%	
		Vanadium, total	7440-62-2	E420	0.00250	mg/L	<0.00250	<0.00250	0	Diff <2x LOR	
		Zinc, total	7440-66-6	E420	0.0150	mg/L	0.358	0.362	1.10%	20%	
		Zirconium, total	7440-67-7	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	
Total Metals (QC L	ot: 1619344)										
CG2412141-016	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
Dissolved Metals (QC Lot: 1618527)										
YL2401273-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.250	mg/L	782	801	2.39%	20%	
		Magnesium, dissolved	7439-95-4	E421	0.0250	mg/L	136	136	0.0340%	20%	
		Potassium, dissolved	7440-09-7	E421	0.250	mg/L	12.9	13.0	0.881%	20%	
		Sodium, dissolved	7440-23-5	E421	0.250	mg/L	394	398	0.880%	20%	
Volatile Organic Co	mpounds (QC Lot: 1621	003)									
CG2411997-001	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	7.28	7.32	0.592%	30%	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	28.6	29.2	1.99%	30%	
		Toluene	108-88-3	E611A	0.50	μg/L	74.3	74.6	0.387%	30%	
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	113	114	0.719%	30%	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	68.5	70.5	2.93%	30%	
Hydrocarbons (QC	Lot: 1621004)										
CG2411997-001	Anonymous	F1 (C6-C10)		E581.F1	100	μg/L	710	680	4.28%	30%	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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: 1616996)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
Physical Tests (QCLot: 1617773)					
Conductivity	E100	1	μS/cm	1.2	
Physical Tests (QCLot: 1617775)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
Physical Tests (QCLot: 1624617)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
Anions and Nutrients (QCLot: 1617017)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
Anions and Nutrients (QCLot: 1617165)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
Anions and Nutrients (QCLot: 1617166)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
Anions and Nutrients (QCLot: 1617167)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
Anions and Nutrients (QCLot: 1617168)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
Anions and Nutrients (QCLot: 1617169)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
Anions and Nutrients (QCLot: 1617170)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
Anions and Nutrients (QCLot: 1617171)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
Anions and Nutrients (QCLot: 1618200)					
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	<0.0020	
Anions and Nutrients (QCLot: 1619013)					
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	<0.0050	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water

nalyte	CAS Number	Method	LOR	Unit	Result	Qualifier
rganic / Inorganic Carbon (QC	Lot: 1619915) - continued					
Carbon, total organic [TOC]		E355-L	0.5	mg/L	<0.50	
otal Metals (QCLot: 1618530)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	
Antimony, total	7440-36-0	E420	0.000	1 mg/L	<0.00010	
Arsenic, total	7440-38-2	E420	0.000	1 mg/L	<0.00010	
Barium, total	7440-39-3	E420	0.000	1 mg/L	<0.00010	
Beryllium, total	7440-41-7	E420	0.0000	2 mg/L	<0.000020	
Bismuth, total	7440-69-9	E420	0.0000	5 mg/L	<0.000050	
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	
Cadmium, total	7440-43-9	E420	0.0000	05 mg/L	<0.000050	
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	
Cesium, total	7440-46-2	E420	0.0000	1 mg/L	<0.000010	
Chromium, total	7440-47-3	E420	0.000	5 mg/L	<0.00050	
Cobalt, total	7440-48-4	E420	0.000	1 mg/L	<0.00010	
Copper, total	7440-50-8	E420	0.000	5 mg/L	<0.00050	
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	
Lead, total	7439-92-1	E420	0.0000	5 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	0.000	1 mg/L	<0.00010	
Molybdenum, total	7439-98-7	E420	0.0000	5 mg/L	<0.000050	
Nickel, total	7440-02-0	E420	0.000	5 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	0.000	2 mg/L	<0.00020	
Selenium, total	7782-49-2	E420	0.0000	5 mg/L	<0.000050	
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	
Silver, total	7440-22-4	E420	0.0000	1 mg/L	<0.000010	
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	
Strontium, total	7440-24-6	E420	0.000	2 mg/L	<0.00020	
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	
Tellurium, total	13494-80-9	E420	0.000	2 mg/L	<0.00020	
Thallium, total	7440-28-0	E420	0.0000	1 mg/L	<0.000010	
Thorium, total	7440-29-1	E420	0.000	1 mg/L	<0.00010	
Tin, total	7440-31-5	E420	0.000	1 mg/L	<0.00010	

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Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1618530)	- continued					
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: 1619344)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.000050	
Dissolved Metals (QCLot: 1618	527)					
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	
Volatile Organic Compounds(C	QCLot: 1621003)					
Benzene	71-43-2	E611A	0.5	μg/L	<0.50	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	<0.50	
Toluene	108-88-3	E611A	0.5	μg/L	<0.50	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	<0.40	
Xylene, o-	95-47-6	E611A	0.3	μg/L	<0.30	
Hydrocarbons (QCLot: 1618675	5)					
F2 (C10-C16)		E601	100	μg/L	<100	
F3 (C16-C34)		E601	250	μg/L	<250	
F4 (C34-C50)		E601	250	μg/L	<250	
Hydrocarbons (QCLot: 1621004	1)					
F1 (C6-C10)		E581.F1	100	μg/L	<100	

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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 Co	ontrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1616996)									
Solids, total suspended [TSS]		E160-L	1	mg/L	150 mg/L	92.4	85.0	115	
Physical Tests (QCLot: 1617773)									
Conductivity		E100	1	μS/cm	147 μS/cm	94.7	90.0	110	
Physical Tests (QCLot: 1617774)									
рН		E108		pH units	7 pH units	101	98.0	102	
Physical Tests (QCLot: 1617775)									
Alkalinity, phenolphthalein (as CaCO3)		E290	1	mg/L	229 mg/L	98.6	75.0	125	
Alkalinity, total (as CaCO3)		E290	1	mg/L	500 mg/L	99.5	85.0	115	
Physical Tests (QCLot: 1624617)									
Solids, total dissolved [TDS]		E162-L	3	mg/L	1000 mg/L	99.7	85.0	115	
Anions and Nutrients (QCLot: 1617017)	44005 44.0	E070 II	0.004	,	0.00 #	00.4	00.0	400	
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	99.4	80.0	120	
Anions and Nutrients (QCLot: 1617165)	4.4707.55.0	E235.NO3-L	0.005	77 T !!	0.5	00.0	00.0	440	
Nitrate (as N)	14/97-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.0	90.0	110	
Anions and Nutrients (QCLot: 1617166)	14707.65.0	E235.NO2-L	0.001	m a //	0.5 mg/L	99.6	90.0	110	
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.6	90.0	110	
Anions and Nutrients (QCLot: 1617167) Sulfate (as SO4)	14808-79-8	E225 CO4	0.3	ma at /1	100 mg/l	99.7	90.0	110	
	14000-79-0	E235.5U4	0.3	mg/L	100 mg/L	99.7	90.0	110	
Anions and Nutrients (QCLot: 1617168) Chloride	16887-00-6	E225 CI	0.5	ma/l	100 mg/L	98.9	90.0	110	
	10007-00-0	E233.GI	0.5	mg/L	100 Hig/L	90.9	90.0	110	
Anions and Nutrients (QCLot: 1617169) Sulfate (as SO4)	14808-79-8	E235 SO4	0.3	mg/L	100 mg/L	100	90.0	110	
,	14000-7 9-0	L233.304	0.5	IIIg/L	100 Hig/L	100	90.0	110	
Anions and Nutrients (QCLot: 1617170) Nitrate (as N)	1/707-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.7	90.0	110	
	14737-33-0	L200.1400-L	0.000	mg/L	Z.O mg/L	55.7	30.0	110	
Anions and Nutrients (QCLot: 1617171) Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	
	14131-00-0		0.001	mg/L	0.0 mg/L	130	30.0	110	
Anions and Nutrients (QCLot: 1618200) Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.03 mg/L	97.0	80.0	120	
	7,20-14-0	20.2 0	0.002	1119/2	0.00 mg/L	07.0	55.5	120	
Anions and Nutrients (QCLot: 1619013) Ammonia, total (as N)	7664-41-7	F298	0.005	mg/L	0.2 mg/L	99.3	85.0	115	
Anninonia, total (d5 IV)	7007-41-7		0.000	mg/L	0.2 mg/L	33.3	00.0	115	
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Sub-Matrix: Water						Laboratory Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifie
Organic / Inorganic Carbon (QCLot: 161	9915)								
Carbon, total organic [TOC]		E355-L	0.5	mg/L	8.57 mg/L	93.0	80.0	120	
Total Metals (QCLot: 1618530)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	96.2	80.0	120	
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.7	80.0	120	
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	94.8	80.0	120	
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	96.7	80.0	120	
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	95.5	80.0	120	
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	94.3	80.0	120	
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.6	80.0	120	
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	93.0	80.0	120	
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.1	80.0	120	
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	96.0	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	93.7	80.0	120	
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	93.4	80.0	120	
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	106	80.0	120	
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.6	80.0	120	
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.0	80.0	120	
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	97.9	80.0	120	
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	100	80.0	120	
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	92.2	80.0	120	
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	96.5	70.0	130	
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.6	80.0	120	
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	94.7	80.0	120	
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	89.2	80.0	120	
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	98.6	60.0	140	
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.4	80.0	120	
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	93.5	80.0	120	
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.2	80.0	120	
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	93.7	80.0	120	
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.2	80.0	120	
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.0	80.0	120	
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	91.2	80.0	120	
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.0	80.0	120	

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Sub-Matrix: Water						Laboratory Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1618530) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.0	80.0	120	
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	94.2	80.0	120	
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.2	80.0	120	
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	96.0	80.0	120	
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	90.8	80.0	120	
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	
Total Metals (QCLot: 1619344)									,
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	106	80.0	120	
Dissolved Metals (QCLot: 1618527) Calcium, dissolved	7440-70-2	E421	0.05	ma/l	50 mg/L	94.7	80.0	120	
· ·				mg/L	ı -				
Magnesium, dissolved	7439-95-4		0.005	mg/L	50 mg/L	98.9	80.0	120	
Potassium, dissolved	7440-09-7		0.05	mg/L	50 mg/L	101	80.0	120	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	100	80.0	120	
Volatile Organic Compounds (QCLot: 1621003)									
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	118	70.0	130	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	109	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	111	70.0	130	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	113	70.0	130	
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	114	70.0	130	
Hydrocarbons (QCLot: 1618675)									
F2 (C10-C16)		E601	100	μg/L	3830 μg/L	92.1	70.0	130	
F3 (C16-C34)		E601	250	μg/L	7950 μg/L	92.6	70.0	130	
F4 (C34-C50)		E601	250	μg/L	4220 μg/L	97.9	70.0	130	
Hydrocarbons (QCLot: 1621004)									
F1 (C6-C10)		E581.F1	100	μg/L	2480 μg/L	87.5	70.0	130	

Page : 12 of 14 Work Order : YL2401272

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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 Spik	e (MS) Report		
					Spi	ike	Recovery (%)	Recovery	Limits (%)	
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutri	ents (QCLot: 1617017)									
CG2412096-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0519 mg/L	0.05 mg/L	104	70.0	130	
Anions and Nutri	ents (QCLot: 1617165)									
CG2412098-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.52 mg/L	2.5 mg/L	101	75.0	125	
Anions and Nutri	ents (QCLot: 1617166)									
CG2412098-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.509 mg/L	0.5 mg/L	102	75.0	125	
Anions and Nutrie	ents (QCLot: 1617167)									
CG2412098-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.5 mg/L	100 mg/L	99.5	75.0	125	
Anions and Nutri	ents (QCLot: 1617168)									
YL2401272-005	GLG-2024-00003-009	Chloride	16887-00-6	E235.CI	101 mg/L	100 mg/L	101	75.0	125	
Anions and Nutri	ents (QCLot: 1617169)									
YL2401272-005	GLG-2024-00003-009	Sulfate (as SO4)	14808-79-8	E235.SO4	100 mg/L	100 mg/L	100	75.0	125	
Anions and Nutri	ents (QCLot: 1617170)									
YL2401272-005	GLG-2024-00003-009	Nitrate (as N)	14797-55-8	E235.NO3-L	2.53 mg/L	2.5 mg/L	101	75.0	125	
Anions and Nutri	ents (QCLot: 1617171)									
YL2401272-005	GLG-2024-00003-009	Nitrite (as N)	14797-65-0	E235.NO2-L	0.510 mg/L	0.5 mg/L	102	75.0	125	
Anions and Nutri	ents (QCLot: 1618200)									
CG2412050-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0504 mg/L	0.05 mg/L	101	70.0	130	
Anions and Nutri	ents (QCLot: 1619013)									
RG2401306-004	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L		ND	75.0	125	
Organic / Inorgan	ic Carbon (QCLot: 161	19915)								
CG2412144-001	Anonymous	Carbon, total organic [TOC]		E355-L	ND mg/L		ND	70.0	130	
Total Metals (QC	Lot: 1618530)									
CG2411987-001	Anonymous	Aluminum, total	7429-90-5	E420	2.30 mg/L	2 mg/L	115	70.0	130	
		Antimony, total	7440-36-0	E420	0.217 mg/L	0.2 mg/L	108	70.0	130	
		Arsenic, total	7440-38-2	E420	0.222 mg/L	0.2 mg/L	111	70.0	130	
		Barium, total	7440-39-3	E420	0.225 mg/L	0.2 mg/L	112	70.0	130	
		Beryllium, total	7440-41-7	E420	0.435 mg/L	0.4 mg/L	109	70.0	130	
		Bismuth, total	7440-69-9	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	
		Boron, total	7440-42-8	E420	1.13 mg/L	1 mg/L	113	70.0	130	
		Cadmium, total	7440-43-9	E420	0.0454 mg/L	0.04 mg/L	114	70.0	130	
		Calcium, total	7440-70-2	E420	ND mg/L		ND	70.0	130	
		Cesium, total	7440-46-2	E420	0.111 mg/L	0.1 mg/L	111	70.0	130	
	T .	Chromium, total	7440-47-3	E420	0.460 mg/L	0.4 mg/L	115	70.0	130	

Page : 13 of 14 Work Order : YL2401272

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water							Matrix Spik	e (MS) Report		
					Spi	ike	Recovery (%)	Recovery	Limits (%)	
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifie
otal Metals (QC	Lot: 1618530) - con	tinued								
CG2411987-001	Anonymous	Cobalt, total	7440-48-4	E420	0.230 mg/L	0.2 mg/L	115	70.0	130	
		Copper, total	7440-50-8	E420	0.224 mg/L	0.2 mg/L	112	70.0	130	
		Iron, total	7439-89-6	E420	23.0 mg/L	20 mg/L	115	70.0	130	
		Lead, total	7439-92-1	E420	0.212 mg/L	0.2 mg/L	106	70.0	130	
		Lithium, total	7439-93-2	E420	1.10 mg/L	1 mg/L	110	70.0	130	
		Magnesium, total	7439-95-4	E420	ND mg/L		ND	70.0	130	
		Manganese, total	7439-96-5	E420	0.232 mg/L	0.2 mg/L	116	70.0	130	
		Molybdenum, total	7439-98-7	E420	0.225 mg/L	0.2 mg/L	112	70.0	130	
		Nickel, total	7440-02-0	E420	0.451 mg/L	0.4 mg/L	113	70.0	130	
		Phosphorus, total	7723-14-0	E420	115 mg/L	100 mg/L	115	70.0	130	
		Potassium, total	7440-09-7	E420	48.4 mg/L	40 mg/L	121	70.0	130	
		Rubidium, total	7440-17-7	E420	0.229 mg/L	0.2 mg/L	114	70.0	130	
		Selenium, total	7782-49-2	E420	0.455 mg/L	0.4 mg/L	114	70.0	130	
		Silicon, total	7440-21-3	E420	107 mg/L	100 mg/L	107	70.0	130	
		Silver, total	7440-22-4	E420	0.0461 mg/L	0.04 mg/L	115	70.0	130	
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130	
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130	
		Sulfur, total	7704-34-9	E420	230 mg/L	200 mg/L	115	70.0	130	
		Tellurium, total	13494-80-9	E420	0.462 mg/L	0.4 mg/L	115	70.0	130	
		Thallium, total	7440-28-0	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	
		Thorium, total	7440-29-1	E420	0.217 mg/L	0.2 mg/L	108	70.0	130	
		Tin, total	7440-31-5	E420	0.220 mg/L	0.2 mg/L	110	70.0	130	
		Titanium, total	7440-32-6	E420	0.458 mg/L	0.4 mg/L	114	70.0	130	
		Tungsten, total	7440-33-7	E420	0.213 mg/L	0.2 mg/L	106	70.0	130	
		Uranium, total	7440-61-1	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	
		Vanadium, total	7440-62-2	E420	1.15 mg/L	1 mg/L	115	70.0	130	
		Zinc, total	7440-66-6	E420	4.22 mg/L	4 mg/L	105	70.0	130	
		Zirconium, total	7440-67-7	E420	0.450 mg/L	0.4 mg/L	112	70.0	130	
otal Metals (QC	Lot: 1619344)									
FJ2402572-001	Anonymous	Mercury, total	7439-97-6	E508	0.000107 mg/L	0 mg/L	107	70.0	130	
issolved Metals	(QCLot: 1618527)									
CG2411932-002	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L		ND	70.0	130	
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130	
		Potassium, dissolved	7440-09-7	E421	35.4 mg/L	40 mg/L	88.6	70.0	130	
		Sodium, dissolved	7440-23-5	E421	ND mg/L		ND	70.0	130	
olatile Organic C	Compounds (QCLo	t: 1621003)								
CG2411997-001	Anonymous	Benzene	71-43-2	E611A	111 μg/L	100 μg/L	111	70.0	130	
		Ethylbenzene	100-41-4	E611A	109 μg/L	100 μg/L	109	70.0	130	
		Toluene	108-88-3	E611A	112 μg/L	100 μg/L	112	70.0	130	
		Xylene, m+p-	179601-23-1	E611A	235 µg/L	200 μg/L	117	70.0	130	
		Xylene, o-	95-47-6	E611A	115 µg/L	100 μg/L	115	70.0	130	

Page : 14 of 14 Work Order : YL2401272

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water





Canada Toll Free: 1 800 668 9878

COC Number: 22 -

-	Released by: Mu		□ ves	Are samples for h		Are samples taken	Drinking V										(Aco use only)	ALS Sample #	ALS Lab Work	LSD:	PO / AFE:	Job / Project #: (ALS Client Code / QUOTE #:		Contact:	Company:		Invoice To	Postal Code:	City/Province:	-		Phone:		Company:
to have	Released by Mandy Philad Date: Date: 02/20	SHIPMENT RELEASE (client use)		Are samples for human consumption/ use?	2	Are samples taken from a Regulated DW System?	Drinking Water (DW) Samples (cilent use)		646-2024-000C3-022	26-2024-00003-02	616-2024-00003-020	616-2024-60003-009	6-16-26-24-00003-014	6-16-2024-60003-017	GLG- 2024-00003-016	1	(This description will appear on the report)	Sample Identification and/or Coordinates	ALS Lab Work Order# (ALS use only):			Job / Project #: Gordon Lake - Phase LTMP - Water	/ QUOTE #: YL24-STAC100-0003	Project Information			Copy of Invoice with Report	Same as Report To	X1A 2P4	Yellowknife/NT	4910 53 Street	Company address below will appear on the final report	204 509-9864	Natalie Normandeau	Stantec Consulting Ltd.
4:60							Notes / Specify					7					ir on the report)	or Coordinates									u	o				on			une mai report
1	Received by:	=					Limits for result ex (Ex												ALS Contact:	Location:	Requisitioner	Major/Minor Code:	AFE/Cost Center:		Email 2	Email 1 or Fax	Select Invoice I		Email 3	Email 2	Email 1 or Fax	Select Distribution:	Compare Resu	Merge QC/QC	Select Seport Format
/\	2	INITIAL SHIPMENT RECEPTION (ALS use only)					Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)		22-08-24	22-08-24	22-08-24	22-08-24	22-08-24	22-08-24	22-08-24	22-08-24	(dd-mmm-yy)	Date						Oil and Gas Required Fields (client use)		SAPinvoices@stantec.com	Select Invoice Distribution: 🗔 EMAIL	Invoice R	ryan.weber@stantec.com	steve.harmington@stantec.com	natalle.normandeau@stantec.com	ion: 🔄 EMAIL	Compare Results to Criteria on Report - provide details below if box checked	Merge QC/QCI Reports with CQA	
.10	Date:	RECEPTION (A					ng from drop-dow		12:20	12:15	2:00		11:15	10:45	10:10	9:30	(hh:mm)	Time	Sampler:			Routing Code:	PO#	d Fields (client		-	MAIL MAIL	Invoice Recipients	dec.com	@stantec.com	au@stantec.com	☐ MAIL ☐	t - provide details bed	A EXCEL	
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	I from man man	FINAL SHIPMENT RECEPTION (ALS 1880 COLV)		FINAL COOLER TEMPERATURES C	tody Seals Intact		ALS use only)	Telephone: +1 887 873 5593		17 11 2 11 11	540.1	NON 0401272	life Beference	Environmental Division											section Location	od /E/Di kelau	STATE OF THE PARTY	For all tosts with rush TATs requested, please contact your AM to confirm availability.		Additional fees may apply to rush requests on weekends, statutory holidays and for non-rousine tests.			AFFIX ALS BARCODE LABEL HERE		
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ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Work Order : **YL2401469** Page : 1 of 10

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg
Address : 4910 53 Street Address : 314 Old Airpor

: 4910 53 Street Address : 314 Old Airport Road, Unit 116
Yellowknife NT Canada X1A 2P4 Yellowknife NT Canada X1A 3T3

Yellowknife NT Canada X1A 2P4

: ---
Telephone

1 867 445 7143

Project : Gordon Lake - Phase 1 LTMP - Water Date Samples Received : 12-Sep-2024 15:35
PO Date Analysis Commenced : 16-Sep-2024

Sampler : ---Site : ----

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 8
No. of samples analysed : 8

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
- Surrogate Control Limits

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

Telephone

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	
Erin Sanchez		Metals, Burnaby, British Columbia	
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia	
Lindsay Gung	Supervisor - Water Chemistry	Inorganics, Burnaby, British Columbia	
Lindsay Gung	Supervisor - Water Chemistry	Organics, Burnaby, British Columbia	
Nguyen Tran	Laboratory Analyst	Organics, Calgary, Alberta	
Owen Cheng		Metals, Burnaby, British Columbia	
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia	

Page : 2 of 10 Work Order : YL2401469

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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.

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					4-009	4-014	4-015	4-016	4-017
			Client samp	ling date / time	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401469-001	YL2401469-002	YL2401469-003	YL2401469-004	YL2401469-005
					Result	Result	Result	Result	Result
Physical Tests					17.0				
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	45.2	41.6	90.7	41.8	41.3
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	45.2	41.6	90.7	41.8	41.3
Conductivity	[E100/VA	2.0	μS/cm	110	99.3	187	99.0	99.6
Hardness (as CaCO3), from total Ca/Mg	[EC100A/VA	0.60	mg/L	47.3	43.4	88.5	42.9	41.6
рН	[E108/VA	0.10	pH units	7.90	7.86	7.94	7.86	7.90
Solids, total dissolved [TDS]	[E162-L/VA	3.0	mg/L	68.2	64.5	169	65.5	60.5
Solids, total suspended [TSS]	[E160-L/VA	1.0	mg/L	<1.0	<1.0	5.0	<1.0	<1.0
Hardness (as CaCO3), dissolved	[EC100/VA	0.50	mg/L	45.3	42.4	90.4	43.6	43.2
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7 l	E298/VA	0.0050	mg/L	0.0056	<0.0050	0.0487	<0.0050	<0.0050
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	1.43	1.42	0.63	1.42	1.42
Nitrate (as N)	14797-55-8 I	E235.NO3-L/V	0.0050	mg/L	<0.0050	<0.0050	0.0109	<0.0050	<0.0050
	/	A							
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L	<0.022	<0.022	0.048	<0.022	<0.022
Nitrata + Nitrita (aa N))	VA	0.0050	ma/l	<0.0051	<0.0051	0.0109	<0.0051	<0.0051
Nitrate + Nitrite (as N)	[EC235.N+N/V a	0.0030	mg/L	~ 0.0031	\0.0031	0.0109	\0.0031	~ 0.0031
Nitrite (as N)	14797-65-0 [E235.NO2-L/V	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
NIC IC CO. NO.		Α	0.0000		40,0000	10,0000	40,0000	-0.0000	-0.0000
Nitrite (as NO2)	14797-65-0	EC235.NO2A/	0.0030	mg/L	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0		0.0020	mg/L	0.0069	0.0046	0.0248	0.0054	0.0076
Sulfate (as SO4)		E235.SO4/VA	0.30	mg/L	9.67	7.78	7.97	7.73	7.74
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	3.23	2.60	24.4	2.91	2.68
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0121	0.0092	0.0143	0.0094	0.0090
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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				4-009	4-014	4-015	4-016	4-017
		Client samp	ling date / time	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401469-001	YL2401469-002	YL2401469-003	YL2401469-004	YL2401469-005
				Result	Result	Result	Result	Result
Total Metals								
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00143	0.00035	0.00321	0.00035	0.00036
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.00603	0.00450	0.0154	0.00480	0.00441
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010	<0.010	0.011	<0.010	<0.010
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	13.7	12.3	23.2	12.2	11.8
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010	<0.000010	0.000020	<0.000010	<0.000010
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	<0.00010	<0.00010	0.00062	<0.00010	<0.00010
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00052	<0.00050	<0.00050	<0.00050	0.00053
Iron, total	7439-89-6 E420/VA	0.010	mg/L	<0.010	<0.010	0.049	<0.010	<0.010
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0021	0.0021	0.0078	0.0021	0.0021
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	3.19	3.09	7.42	3.02	2.96
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.00318	0.00188	0.0593	0.00299	0.00214
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.000050	<0.000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000420	0.000092	0.000066	0.000096	0.000095
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.00052	<0.00050	0.00699	<0.00050	0.00050
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.51	1.49	2.58	1.49	1.44
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00209	0.00213	0.00379	0.00202	0.00200
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.40	0.15	0.53	0.17	0.15
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	2.43	2.30	5.32	2.31	2.29
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.0584	0.0457	0.106	0.0462	0.0439
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	3.67	2.86	3.74	3.05	2.79
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
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Client

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Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water		Clic	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				4-009	4-014	4-015	4-016	4-017
			ing date / time	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00
Analyte	CAS Number Method/La	b LOR	Unit	YL2401469-001	YL2401469-002	YL2401469-003	YL2401469-004	YL2401469-005
				Result	Result	Result	Result	Result
Total Metals								
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.000421	0.000100	0.000055	0.000095	0.000104
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050	<0.00050	0.00056	<0.00050	<0.00050
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals								
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	13.0	12.2	24.0	12.4	12.4
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	3.11	2.90	7.41	3.06	2.98
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	1.50	1.47	2.73	1.52	1.51
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	2.39	2.26	5.61	2.38	2.33
Dissolved metals filtration location	EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	108-88-3 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, o-	95-47-6 E611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes, total	1330-20-7 E611A/VA	0.75	μg/L	<0.75	<0.75	<0.75	<0.75	<0.75
BTEX, total	E611A/VA	1.2	μg/L	<1.2	<1.2	<1.2	<1.2	<1.2
Hydrocarbons								
F1 (C6-C10)	E581.F1/CG	100	μg/L	<100	<100	<100	<100	<100
F1-BTEX	EC580/VA	100	μg/L	<100	<100	<100	<100	<100
F2 (C10-C16)	E601/VA	100	μg/L	<100	<100	<100	<100	<100
F3 (C16-C34)	E601/VA	250	μg/L	<250	<250	<250	<250	<250
F4 (C34-C50)	E601/VA	250	μg/L	<250	<250	<250	<250	<250
Hydrocarbons, total (C6-C50)	n/a EC581/VA	400	μg/L	<400	<400	<400	<400	<400
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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					4-009	4-014	4-015	4-016	4-017
			Client samp	ling date / time	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401469-001	YL2401469-002	YL2401469-003	YL2401469-004	YL2401469-005
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/VA	1.0	%	95.8	87.8	91.5	90.2	106
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	112	97.7	95.6	107	108
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 E	611A/VA	1.0	%	83.9	84.4	84.3	82.5	80.9
Difluorobenzene, 1,4-	540-36-3 E	611A/VA	1.0	%	100	100	100	100	101

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

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

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					4-020	4-022	4-023	
			Client samp	ling date / time	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401469-006	YL2401469-007	YL2401469-008	
				Ì	Result	Result	Result	
Physical Tests								
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	44.7			
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0			
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0			
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0			
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	44.7			
Conductivity		E100/VA	2.0	μS/cm	109			
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	47.3			
рН		E108/VA	0.10	pH units	7.91			
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	69.2			
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	<1.0			
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	45.6			
Anions and Nutrients								
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0060			
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	1.42			
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	<0.0050			
Nitrate (as NO3)	14797-55-8	A EC235.NO3A/	0.010	mg/L	<0.022			
Nitrate + Nitrite (as N)		VA EC235.N+N/V	0.0050	mg/L	<0.0051			
Nitrite (as N)	14797-65-0	Α E235.NO2-L/V Δ	0.0010	mg/L	<0.0010			
Nitrite (as NO2)	14797-65-0	EC235.NO2A/ VA	0.0030	mg/L	<0.0033			
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010			
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0063			
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	9.58			
Organic / Inorganic Carbon								
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	3.49			
Total Metals								
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0114			

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Sub-Matrix: Water		Cli	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)				4-020	4-022	4-023	
		Client samp	ling date / time	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401469-006	YL2401469-007	YL2401469-008	
				Result	Result	Result	
Total Metals	7440-36-0 E420/VA	0.00010	70 gr/l	<0.00010			
Antimony, total	7440-38-2 E420/VA	0.00010	mg/L	0.00140			
Arsenic, total Barium, total	7440-38-2 E420/VA 7440-39-3 E420/VA	0.00010	mg/L	0.00603			
•		0.00010	mg/L	<0.00003			
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100			
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.00050			
Boron, total	7440-42-8 E420/VA		mg/L				
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	<0.0000050			
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	13.6			
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010			
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050			
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	<0.00010			
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00051			
Iron, total	7439-89-6 E420/VA	0.010	mg/L	<0.010			
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050			
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0021			
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	3.24			
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.00310			
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050			
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000428			
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	<0.00050			
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050			
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.49			
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00211			
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	<0.000050			
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	0.40			
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010			
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	2.33			
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.0600			
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	3.63			
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020			

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Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					4-020	4-022	4-023	
				ling date / time	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401469-006	YL2401469-007	YL2401469-008	
Total Metals					Result	Result	Result	
Thallium, total	7440-28-0 E4	420/VA	0.000010	mg/L	<0.000010			
Thorium, total	7440-29-1 E4		0.00010	mg/L	<0.00010			
Tin, total	7440-31-5 E4		0.00010	mg/L	<0.00010			
Titanium, total	7440-32-6 E4		0.00030	mg/L	<0.00030			
Tungsten, total	7440-33-7 E4		0.00010	mg/L	<0.00010			
Uranium, total	7440-61-1 E4		0.000010	mg/L	0.000410			
Vanadium, total	7440-62-2 E4		0.00050	mg/L	<0.00050			
Zinc, total	7440-66-6 E4		0.0030	mg/L	<0.0030			
Zirconium, total	7440-67-7 E4		0.00020	mg/L	<0.00020			
Dissolved Metals	7			J.				
Calcium, dissolved	7440-70-2 E4	421/VA	0.050	mg/L	13.2			
Magnesium, dissolved	7439-95-4 E4		0.0050	mg/L	3.06			
Potassium, dissolved	7440-09-7 E4	421/VA	0.050	mg/L	1.56			
Sodium, dissolved	7440-23-5 E4		0.050	mg/L	2.38			
Dissolved metals filtration location	EF	P421/VA	-	-	Field			
Volatile Organic Compounds [BTEXS+MTBE]								
Benzene	71-43-2 E6	611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4 E6	611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Toluene	108-88-3 E6	611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Xylene, m+p-	179601-23-1 E6	611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Xylene, o-	95-47-6 E6	611A/VA	0.50	μg/L	<0.50	<0.50	<0.50	
Xylenes, total	1330-20-7 E6	611A/VA	0.75	μg/L	<0.75	<0.75	<0.75	
BTEX, total	E6	611A/VA	1.2	μg/L	<1.2	<1.2	<1.2	
Hydrocarbons								
F1 (C6-C10)		581.F1/CG	100	μg/L	<100	<100	<100	
F1-BTEX		C580/VA	100	μg/L	<100	<100	<100	
F2 (C10-C16)	E6	601/VA	100	μg/L	<100	<100	<100	
F3 (C16-C34)	E6	601/VA	250	μg/L	<250	<250	<250	
F4 (C34-C50)		601/VA	250	μg/L	<250	<250	<250	
Hydrocarbons, total (C6-C50)	n/a E0	C581/VA	400	μg/L	<400	<400	<400	
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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	
(Matrix: Water)					4-020	4-022	4-023	
			Client samp	ling date / time	11-Sep-2024 00:00	11-Sep-2024 00:00	11-Sep-2024 00:00	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401469-006	YL2401469-007	YL2401469-008	
					Result	Result	Result	
Hydrocarbons Surrogates								
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/VA	1.0	%	95.0	89.2	104	
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	111	105	109	
Volatile Organic Compounds Surrogates								
Bromofluorobenzene, 4-	460-00-4 E	611A/VA	1.0	%	83.8	82.1	84.0	
Difluorobenzene, 1,4-	540-36-3	611A/VA	1.0	%	100	100	100	

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : **YL2401469** Page : 1 of 23

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address : 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone :---- Telephone :1 867 445 7143

 Project
 : Gordon Lake - Phase 1 LTMP - Water
 Date Samples Received
 : 12-Sep-2024 15:35

 PO
 : --- Issue Date
 : 20-Sep-2024 17:03

C-O-C number :---Sampler :---Site :----

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received :8
No. of samples analysed :8

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

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

Page 3 of 23 YL2401469 Work Order:

Client

Stantec Consulting Ltd. Gordon Lake - Phase 1 LTMP - Water Project



Outliers: Quality Control Samples
Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: Water

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG2-1657824		Manganese, total	7439-96-5	E420	0.00010 ^B	0.0001 mg/L	Blank result exceeds
	001					mg/L		permitted value

Result Qualifiers

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

Page : 4 of 23 Work Order : YL2401469

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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					Ev	∕aluation: × =	Holding time exce	edance ; •	= Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00004-009	E298	11-Sep-2024	16-Sep-2024	28 days	6 days	✓	17-Sep-2024	28 days	7 days	√
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00004-014	E298	11-Sep-2024	16-Sep-2024	28 days	6 days	✓	17-Sep-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00004-015	E298	11-Sep-2024	16-Sep-2024	28 days	6 days	✓	17-Sep-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00004-016	E298	11-Sep-2024	16-Sep-2024	28 days	6 days	✓	17-Sep-2024	28 days	7 days	√
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00004-017	E298	11-Sep-2024	16-Sep-2024	28 days	6 days	1	17-Sep-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GLG-2024-00004-020	E298	11-Sep-2024	16-Sep-2024	28 days	6 days	✓	17-Sep-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE GLG-2024-00004-009	E235.CI	11-Sep-2024	16-Sep-2024	28 days	6 days	✓	16-Sep-2024	28 days	6 days	√

Page 5 of 23 YL2401469 Work Order :

Client

Stantec Consulting Ltd. Gordon Lake - Phase 1 LTMP - Water Project



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

Matrix: Water						/alualion. ^ =	Holding time exce	euance , •	- vvitiiiii	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00004-014	E235.CI	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00004-015	E235.CI	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00004-016	E235.CI	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00004-017	E235.CI	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
			-	days				-	-	
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00004-020	E235.CI	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
		· ·	·	days			· ·		,	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0 001 mg/L)									
HDPE	l									
GLG-2024-00004-009	E378-U	11-Sep-2024	16-Sep-2024	3 days	6 days	×	16-Sep-2024	3 days	6 days	×
		i i	,			EHT	, ,		. ,	EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	Vol 0 001 mg/L)									
HDPE	Jero.our mg/L)									
GLG-2024-00004-014	E378-U	11-Sep-2024	16-Sep-2024	3 days	6 days	3c	16-Sep-2024	3 days	6 days	*
010 131 1000 1011				,-	, -	EHT		0,	,-	EHT
Asiana and National Discolar death and analysis to Calculate the Ultra Tarana I										
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	ever 0.001 mg/L)			I						
GLG-2024-00004-015	E378-U	11-Sep-2024	16-Sep-2024	3 days	6 days	*	16-Sep-2024	3 days	6 days	×
OLO-2027-00004-010		11-00p-2024	10-00p-202 4	Judys	Jaays	EHT	10-00p-2024	Judys	Judys	EHT
						LIII				LIII
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	evel 0.001 mg/L)									
HDPE CLC 2024 00004 016	E378-U	11-Sep-2024	16 San 2024	3 40/10	6 days	×	16 Son 2024	3 4000	6 days	*
GLG-2024-00004-016	L376-U	11-36p-2024	16-Sep-2024	3 days	o uays	EHT	16-Sep-2024	3 days	o uays	EHT
						Eni				EUI

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						raidation. • -	Holding time excee	dance,	· - vvicinii	Holding Hill
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE										
GLG-2024-00004-017	E378-U	11-Sep-2024	16-Sep-2024	3 days	6 days	*	16-Sep-2024	3 days	6 days	*
						EHT				EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE										
GLG-2024-00004-020	E378-U	11-Sep-2024	16-Sep-2024	3 days	6 days	30	16-Sep-2024	3 days	6 days	*
						EHT				EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GLG-2024-00004-009	E235.NO3-L	11-Sep-2024	16-Sep-2024	3 days	6 days	æ	16-Sep-2024	3 days	6 days	×
						EHT				EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GLG-2024-00004-014	E235.NO3-L	11-Sep-2024	16-Sep-2024	3 days	6 days	32	16-Sep-2024	3 days	6 days	*
		· '				EHT		,		EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GLG-2024-00004-015	E235.NO3-L	11-Sep-2024	16-Sep-2024	3 days	6 days	32	16-Sep-2024	3 days	6 days	3 2
010 2021 0000 1 010		ssp _ss	.0 000 202 .	o aayo	o days	EHT	10 000 202 .	o aayo	o aayo	EHT
Anima and Nationa Alikesta in Matanha 10 (Laur Laur)										
Anions and Nutrients : Nitrate in Water by IC (Low Level) HDPE				1						
GLG-2024-00004-016	E235.NO3-L	11-Sep-2024	16-Sep-2024	3 days	6 days	×	16-Sep-2024	3 days	6 days	*
GLG-2024-00004-010		11 00p 2021	10-00p-2024	o days	o days	EHT	10-00p-2024	o days	o days	EHT
										<u></u>
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE	E235.NO3-L	11-Sep-2024	16-Sep-2024	2 days	6 days	×	16-Sep-2024	3 days	6 days	×
GLG-2024-00004-017	E235.NO3-L	11-Sep-2024	16-Sep-2024	3 days	6 days	EHT	16-Sep-2024	3 days	o days	EHT
						ЕПІ				ENI
Anions and Nutrients : Nitrate in Water by IC (Low Level)				1						
HDPE	FOOT NOS :	44.0 0004	40.0 0004	0.1	0.1		40.0 0004	0.1	0.1	
GLG-2024-00004-020	E235.NO3-L	11-Sep-2024	16-Sep-2024	3 days	6 days	*	16-Sep-2024	3 days	6 days	*
						EHT				EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GLG-2024-00004-009	E235.NO2-L	11-Sep-2024	16-Sep-2024	3 days	6 days	×	16-Sep-2024	3 days	6 days	*
						EHT				EHT

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

			_							Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr				Analys		
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE	5005 NOO I	44.0 0004	40.0 0004				40.0 0004			
GLG-2024-00004-014	E235.NO2-L	11-Sep-2024	16-Sep-2024	3 days	6 days	*	16-Sep-2024	3 days	6 days	*
						EHT				EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE	E235.NO2-L	11-Sep-2024	16 Con 2024	2 days	6 days	*	16-Sep-2024	2 days	6 days	*
GLG-2024-00004-015	E235.NO2-L	11-Sep-2024	16-Sep-2024	3 days	6 days	EHT	16-Sep-2024	3 days	6 days	EHT
						ЕПІ				ЕПІ
Anions and Nutrients : Nitrite in Water by IC (Low Level)				I	I			T	I I	
HDPE GLG-2024-00004-016	E235.NO2-L	11-Sep-2024	16-Sep-2024	3 days	6 days	×	16-Sep-2024	3 days	6 days	*
GLG-2024-00004-010	L233.NO2-L	11-3ep-2024	10-3ер-2024	3 days	0 days	EHT	10-3ер-2024	3 days	0 uays	EHT
						LIII				LIII
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-017	E235.NO2-L	11-Sep-2024	16-Sep-2024	3 days	6 days	×	16-Sep-2024	3 days	6 days	*
GLG-2024-00004-017	2200.1102	11 COP 2021	10-00p-2024	o days	o days	EHT	10-00p-2024	o days	o days	EHT
Asiana and Nickianta - Nitrita in Matan In 10 (Land In 10)										
Anions and Nutrients : Nitrite in Water by IC (Low Level) HDPE							<u> </u>			
GLG-2024-00004-020	E235.NO2-L	11-Sep-2024	16-Sep-2024	3 days	6 days	32	16-Sep-2024	3 days	6 days	3C
		' '	,			EHT	, ,		. ,	EHT
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00004-009	E235.SO4	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
		·	·	days	1		· ·		,	
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00004-014	E235.SO4	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE	T									
GLG-2024-00004-015	E235.SO4	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00004-016	E235.SO4	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water					E	/aluation. × –	Holding time exce	edance, v	– vvitriiri	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00004-017	E235.SO4	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GLG-2024-00004-020	E235.SO4	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
			-	days				-	-	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)				-						
Amber glass total (sulfuric acid)							<u> </u>			
GLG-2024-00004-009	E372-U	11-Sep-2024	16-Sep-2024	28	6 days	✓	18-Sep-2024	28 days	7 days	✓
		· ·	'	days			· ·	,	,	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)				<u> </u>	<u> </u>					
GLG-2024-00004-014	E372-U	11-Sep-2024	16-Sep-2024	28	6 days	✓	18-Sep-2024	28 days	7 days	✓
GLG-2024-00004-014	2072 0	11 00p 2021	10-00p-2024	days	o days		10-00p-2024	20 days	r days	•
				uays						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)				<u> </u>	I					
Amber glass total (sulfuric acid)	E372-U	11-Sep-2024	16-Sep-2024	00	6 days	√	18-Sep-2024	28 days	7 daya	✓
GLG-2024-00004-015	E372-U	11-Sep-2024	16-Sep-2024	28	6 days	•	16-Sep-2024	20 days	7 days	•
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)						,				,
GLG-2024-00004-016	E372-U	11-Sep-2024	16-Sep-2024	28	6 days	✓	18-Sep-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00004-017	E372-U	11-Sep-2024	16-Sep-2024	28	6 days	✓	18-Sep-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00004-020	E372-U	11-Sep-2024	16-Sep-2024	28	6 days	✓	18-Sep-2024	28 days	7 days	✓
				days						
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00004-009	E421	11-Sep-2024	19-Sep-2024	180	8 days	✓	20-Sep-2024	180	9 days	✓
			,	days	′			days		
								,-		

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water

Evaluation: **x** = Holding time exceedance ; ✓ = Within Holding Time

Matrix: Water					L_V	= Holding time exceedance; ✓ = Within Holding Tim				
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00004-014	E421	11-Sep-2024	19-Sep-2024	180	8 days	✓	20-Sep-2024	180	9 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00004-015	E421	11-Sep-2024	19-Sep-2024	180	8 days	✓	20-Sep-2024	180	9 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)	T									
GLG-2024-00004-016	E421	11-Sep-2024	19-Sep-2024	180	8 days	✓	20-Sep-2024	180	9 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
GLG-2024-00004-017	E421	11-Sep-2024	19-Sep-2024	180	8 days	✓	20-Sep-2024	180	9 days	✓
		i i	,	days	,		, ,	days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS				,				,		
HDPE - dissolved (lab preserved)				<u> </u>			<u> </u>			
GLG-2024-00004-020	E421	11-Sep-2024	19-Sep-2024	180	8 days	✓	20-Sep-2024	180	9 days	✓
		' '	,	days	,		, ,	days		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID				,				,		
Glass vial (sodium bisulfate)	T						I			
GLG-2024-00004-009	E581.F1	11-Sep-2024	19-Sep-2024	14	8 days	✓	19-Sep-2024	14 days	8 days	✓
010 1011 0000 1 000		' '		days	, -			, -	, -	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID				uayo						
Glass vial (sodium bisulfate)				I				I		
GLG-2024-00004-014	E581.F1	11-Sep-2024	19-Sep-2024	14	8 days	✓	19-Sep-2024	14 days	8 days	✓
010 2024 00004 014	2001.11	11 COP 2021	10 00p 2021	days	o dayo	·	10 000 2021	1 1 dayo	o dayo	·
				uays						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID							I			
Glass vial (sodium bisulfate) GLG-2024-00004-015	E581.F1	11-Sep-2024	19-Sep-2024	14	8 days	✓	19-Sep-2024	14 days	8 days	√
GLG-2024-00004-015	E301.F1	11-3ep-2024	19-3ep-2024		o uays	•	19-3ep-2024	14 uays	o uays	•
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)	F504 F4	44.0 2004	10.0 0001		0.1		40.0 0004	44.1	0.1	
GLG-2024-00004-016	E581.F1	11-Sep-2024	19-Sep-2024	14	8 days	✓	19-Sep-2024	14 days	8 days	✓
				days						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-017	E581.F1	11-Sep-2024	19-Sep-2024	14	8 days	✓	19-Sep-2024	14 days	8 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-020	E581.F1	11-Sep-2024	19-Sep-2024	14	8 days	✓	19-Sep-2024	14 days	8 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-022	E581.F1	11-Sep-2024	19-Sep-2024	14	8 days	✓	19-Sep-2024	14 days	8 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-023	E581.F1	11-Sep-2024	19-Sep-2024	14	8 days	✓	19-Sep-2024	14 days	8 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-009	E601	11-Sep-2024	18-Sep-2024	14	8 days	✓	19-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-014	E601	11-Sep-2024	18-Sep-2024	14	8 days	✓	19-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-015	E601	11-Sep-2024	18-Sep-2024	14	8 days	✓	19-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID								l e		
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-016	E601	11-Sep-2024	18-Sep-2024	14	8 days	✓	19-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
, ,	F004	44.00004	40 0 0004		0 -1	✓	19-Sep-2024	40 days	1 daya	✓
GLG-2024-00004-017	E601	11-Sep-2024	18-Sep-2024	14	8 days	· ·	19-Sep-2024	40 days	i days	•

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water					L	aluation. * -	Holding time exce	suarice , •	- vvitiiiii	riolaling rillie
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-020	E601	11-Sep-2024	18-Sep-2024	14	8 days	✓	19-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-022	E601	11-Sep-2024	18-Sep-2024	14	8 days	✓	19-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-023	E601	11-Sep-2024	18-Sep-2024	14	8 days	✓	19-Sep-2024	40 days	1 days	✓
		·	·	days	,		· ·		,	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Lovel)			,						
Amber glass total (sulfuric acid)	on (Low Level)									
GLG-2024-00004-009	E355-L	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
010 2021 0000 1000			.0 00p 202.	days	o aayo		10 000 202 .	20 44,0	o aayo	
Organia (Incorporia Controlo Tatal Comparia Control (Non Brownshie) by Combusti	(1 1 1)			dayo						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic Amber glass total (sulfuric acid)	on (Low Level)			<u> </u>						
GLG-2024-0004-014	E355-L	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
GLG-2024-00004-014	E000-E	11-00p-202+	10-00p-202+	days	o days	·	10-00p-2024	20 days	o days	•
				uays						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)			1						
Amber glass total (sulfuric acid) GLG-2024-00004-015	E355-L	11-Sep-2024	16-Sep-2024	00	6 days	✓	16-Sep-2024	28 days	6 days	✓
GLG-2024-00004-015	L333-L	11-3ep-2024	10-3ep-2024	28	0 uays	•	10-3ep-2024	20 uays	0 uays	•
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)	F255 I	11 Can 2024	16 Con 2004		C days	✓	16 Con 2024	00 day	G days	✓
GLG-2024-00004-016	E355-L	11-Sep-2024	16-Sep-2024	28	6 days	*	16-Sep-2024	28 days	o days	•
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion	on (Low Level)									
Amber glass total (sulfuric acid)	F0	44.0	10.0			,	40.0			,
GLG-2024-00004-017	E355-L	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00004-020	E355-L	11-Sep-2024	16-Sep-2024	28	6 days	✓	16-Sep-2024	28 days	6 days	✓
				days						

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Project : Gordon Lake - Phase 1 LTMP - Water



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

Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-009 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days ✓ 16-Sep-2024 14 days 6 days Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-014 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days ✓ 16-Sep-2024 14 days Physical Tests : Alkalinity Species by Titration HDPE HDPE	mes Eval ctual days ✓
Physical Tests : Alkalinity Species by Titration E290 11-Sep-2024 16-Sep-2024 14 days 6 days ✓ 16-Sep-2024 14 days 0 days ✓ 16-Sep-2024 14 days 0 days ✓ 16-Sep-202	ctual
Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-009 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days ✓ 16-Sep-2024 14 days 6 days Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-014 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days	
HDPE GLG-2024-00004-009 E290 11-Sep-2024 16-Sep-2024 14 days 6 days ✓ 16-Sep-2024 14 d	days ✓
E290 11-Sep-2024 16-Sep-2024 14 6 days Physical Tests : Alkalinity Species by Titration E290 11-Sep-2024 16-Sep-2024 14 6 days E290 11-Sep-2024 16-Sep-2024 14 6 days Physical Tests : Alkalinity Species by Titration E290 11-Sep-2024 16-Sep-2024 14 6 days Physical Tests : Alkalinity Species by Titration E290 11-Sep-2024 16-Sep-2024 14 6 days Physical Tests : Alkalinity Species by Titration E290 11-Sep-2024 16-Sep-2024 14 6 days Physical Tests : Alkalinity Species by Titration E290 11-Sep-2024 16-Sep-2024 14 6 days Physical Tests : Alkalinity Species by Titration E290 11-Sep-2024 16-Sep-2024 14 6 days Physical Tests : Alkalinity Species by Titration	days ✓
Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-014 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days	days ✓
Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-014 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days	
HDPE GLG-2024-00004-014 E290 11-Sep-2024 16-Sep-2024 14 days 16-days ✓ 16-Sep-2024 14 days 6 days ✓ 16-Sep-2024 14 days 16-Sep-2024 16-Sep-2024	
GLG-2024-00004-014 E290 11-Sep-2024 16-Sep-2024 14 days 6 days ✓ 16-Sep-2024 14 days 6 occurrence Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-015 E290 11-Sep-2024 16-Sep-2024 14 days ✓ 16-Sep-2024 14 days ✓	
Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-015 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days	
Physical Tests : Alkalinity Species by Titration HDPE GLG-2024-00004-015 E290 11-Sep-2024 16-Sep-2024 16 days ✓ 16-Sep-2024 14 days 6 days	days ✓
HDPE GLG-2024-00004-015 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days	
GLG-2024-00004-015 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days	
days	days ✓
4-7-7	
Physical Tests : Alkalinity Species by Titration	
HDPE	
GLG-2024-00004-016 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days	days ✓
days	
Physical Tests : Alkalinity Species by Titration	
HDPE	
GLG-2024-00004-017 E290 11-Sep-2024 16-Sep-2024 14 6 days ✓ 16-Sep-2024 14 days 6 days	days ✓
days	
Physical Tests : Alkalinity Species by Titration	
HDPE	
	days ✓
days	
Physical Tests : Conductivity in Water	
HDPE	
	days ✓
days	
Physical Tests : Conductivity in Water	
HDPE	
	days ✓
days	
Physical Tests: Conductivity in Water	
HDPE	
days	days 🗸

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water	T					valuation. × =	Holding time exce			Holding Tilli
Analyte Group : Analytical Method	Method	Sampling Date		traction / Pi				Analys		
Container / Client Sample ID(s)			Preparation Date	Holding Rec	g Times Actual	Eval	Analysis Date	Holding Rec	g Times Actual	Eval
Physical Tests : Conductivity in Water			Date	/\cc	Actual			Nec	Actual	
HDPE										
GLG-2024-00004-016	E100	11-Sep-2024	16-Sep-2024	28 days	6 days	1	16-Sep-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00004-017	E100	11-Sep-2024	16-Sep-2024	28 days	6 days	✓	16-Sep-2024	28 days	6 days	√
Physical Tests : Conductivity in Water										
HDPE GLG-2024-00004-020	E100	11-Sep-2024	16-Sep-2024	28 days	6 days	1	16-Sep-2024	28 days	6 days	√
Physical Tests : pH by Meter										
HDPE GLG-2024-00004-009	E108	11-Sep-2024	16-Sep-2024	0.25 hrs	136 hrs	* EHTR-FM	16-Sep-2024	0.25 hrs	140 hrs	* EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00004-014	E108	11-Sep-2024	16-Sep-2024	0.25 hrs	136 hrs	* EHTR-FM	16-Sep-2024	0.25 hrs	140 hrs	≭ EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00004-015	E108	11-Sep-2024	16-Sep-2024	0.25 hrs	136 hrs	* EHTR-FM	16-Sep-2024	0.25 hrs	140 hrs	# EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00004-016	E108	11-Sep-2024	16-Sep-2024	0.25 hrs	136 hrs	# EHTR-FM	16-Sep-2024	0.25 hrs	140 hrs	# EHTR-FM
Physical Tests : pH by Meter									•	
HDPE GLG-2024-00004-017	E108	11-Sep-2024	16-Sep-2024	0.25 hrs	136 hrs	* EHTR-FM	16-Sep-2024	0.25 hrs	140 hrs	# EHTR-FM
Physical Tests : pH by Meter										
HDPE GLG-2024-00004-020	E108	11-Sep-2024	16-Sep-2024	0.25 hrs	136 hrs	* EHTR-FM	16-Sep-2024	0.25 hrs	140 hrs	* EHTR-FM

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water						/aiuation. × –	Holding time excee			Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr				Analys		
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-009	E162-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-014	E162-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-015	E162-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-016	E162-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-017	E162-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-020	E162-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00004-009	E160-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00004-014	E160-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00004-015	E160-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
				1	<u> </u>	ļ		1		

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr			, ,	Analys		Triolaing Time
Container / Client Sample ID(s)	Mounda	Camping Bate	Preparation		g Times	Eval	Analysis Date		Times	Eval
, , , , , , , , , , , , , , , , , , ,			Date	Rec	Actual	2707	7 inaly old Date	Rec	Actual	2707
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GLG-2024-00004-016	E160-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)	1000									
HDPE [TSS-WB] GLG-2024-00004-017	E160-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GLG-2024-00004-020	E160-L	11-Sep-2024					17-Sep-2024	7 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GLG-2024-00004-009	E508	11-Sep-2024	19-Sep-2024	28 days	8 days	✓	19-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GLG-2024-00004-014	E508	11-Sep-2024	19-Sep-2024	28 days	8 days	✓	19-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GLG-2024-00004-015	E508	11-Sep-2024	19-Sep-2024	28 days	8 days	1	19-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GLG-2024-00004-016	E508	11-Sep-2024	19-Sep-2024	28 days	8 days	✓	19-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS				_						
Glass vial total (hydrochloric acid) GLG-2024-00004-017	E508	11-Sep-2024	19-Sep-2024	28 days	8 days	✓	19-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GLG-2024-00004-020	E508	11-Sep-2024	19-Sep-2024	28 days	8 days	1	19-Sep-2024	28 days	8 days	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: Water					E۱	/aluation: × =	Holding time exce	edance; v	= vvitnin	Holding 11m
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
GLG-2024-00004-009	E420	11-Sep-2024	19-Sep-2024	180	8 days	✓	19-Sep-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)	T									
GLG-2024-00004-014	E420	11-Sep-2024	19-Sep-2024	180	8 days	✓	19-Sep-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)	T									
GLG-2024-00004-015	E420	11-Sep-2024	19-Sep-2024	180	8 days	✓	19-Sep-2024	180	9 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS									<u> </u>	
HDPE - total (lab preserved)										
GLG-2024-00004-016	E420	11-Sep-2024	19-Sep-2024	180	8 days	1	19-Sep-2024	180	9 days	✓
		·	,	days			'	days	j	
Total Metals : Total Metals in Water by CRC ICPMS				,						
HDPE - total (lab preserved)				<u> </u>						
GLG-2024-00004-017	E420	11-Sep-2024	19-Sep-2024	180	8 days	✓	19-Sep-2024	180	9 days	✓
		i i	,	days			'	days	,	
Total Metals : Total Metals in Water by CRC ICPMS				,				,		
HDPE - total (lab preserved)										
GLG-2024-00004-020	E420	11-Sep-2024	19-Sep-2024	180	8 days	√	19-Sep-2024	180	9 days	✓
020 2021 00001 020		' '		days	, -			days	5, -	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-009	E611A	11-Sep-2024	18-Sep-2024	14	8 days	✓	18-Sep-2024	14 days	8 days	✓
313 2021 0000 T-000		00p 2024	.5 COP 2024	days	Jaays	, i	. 5 COP 2024	. r days	Jaays	•
Veletile Course Course and a RTEV but had a second				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS		1					I			
Glass vial (sodium bisulfate) GLG-2024-00004-014	E611A	11-Sep-2024	18-Sep-2024	14	8 days	✓	18-Sep-2024	14 days	8 days	✓
GLG-2024-00004-014	LOTIA	11-06p-2024	10-06μ-2024	days	o days	,	10-06p-2024	1- days	o days	•
				uays						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)	E611A	11-Sep-2024	10 00- 2024		0 days	√	10 00- 2024	11 days	0 days	✓
GLG-2024-00004-015	EOTIA	11-Sep-2024	18-Sep-2024	14	8 days	•	18-Sep-2024	14 days	o days	*
				days						

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Matrix: Water

Evaluation: **x** = Holding time exceedance ; ✓ = Within Holding Time

Matrix. Water						alaation.	Tiolding time excel	oddiioo , ·	***************************************	riolaling
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
olatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-016	E611A	11-Sep-2024	18-Sep-2024	14	8 days	✓	18-Sep-2024	14 days	8 days	✓
				days						
/olatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-017	E611A	11-Sep-2024	18-Sep-2024	14	8 days	✓	18-Sep-2024	14 days	8 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-020	E611A	11-Sep-2024	18-Sep-2024	14	8 days	✓	18-Sep-2024	14 days	8 days	✓
				days						
/olatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-022	E611A	11-Sep-2024	18-Sep-2024	14	8 days	✓	18-Sep-2024	14 days	8 days	✓
				days						
/olatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-023	E611A	11-Sep-2024	18-Sep-2024	14	8 days	✓	18-Sep-2024	14 days	8 days	✓
				days						

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).

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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 Quality Control Sample Type			on: × = QC frequ	ount	1	Frequency (%	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)						,	
Alkalinity Species by Titration	E290	1654186	1	19	5.2	5.0	1
Ammonia by Fluorescence	E298	1654331	1	6	16.6	5.0	√
BTEX by Headspace GC-MS	E611A	1658600	1	17	5.8	5.0	√
CCME PHC - F1 by Headspace GC-FID	E581.F1	1659896	1	10	10.0	5.0	√
Chloride in Water by IC	E235.CI	1654189	1	19	5.2	5.0	√
Conductivity in Water	E100	1654185	1	20	5.0	5.0	<u>√</u>
Dissolved Metals in Water by CRC ICPMS	E421	1657891	1	20	5.0	5.0	1
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1654193	1	6	16.6	5.0	1
Nitrate in Water by IC (Low Level)	E235.NO3-L	1654192	1	19	5.2	5.0	√
Nitrite in Water by IC (Low Level)	E235.NO2-L	1654191	1	19	5.2	5.0	1
pH by Meter	E108	1654184	1	20	5.0	5.0	1
Sulfate in Water by IC	E235.SO4	1654188	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1657047	1	19	5.2	5.0	<u> </u>
Total Mercury in Water by CVAAS	E508	1659751	1	20	5.0	5.0	1
Total Metals in Water by CRC ICPMS	E420	1657824	1	20	5.0	5.0	1
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1654329	1	6	16.6	5.0	1
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1654330	1	6	16.6	5.0	1
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1654186	1	19	5.2	5.0	1
Ammonia by Fluorescence	E298	1654331	1	6	16.6	5.0	1
BTEX by Headspace GC-MS	E611A	1658600	1	17	5.8	5.0	1
CCME PHC - F1 by Headspace GC-FID	E581.F1	1659896	1	10	10.0	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1659098	1	15	6.6	5.0	1
Chloride in Water by IC	E235.CI	1654189	1	19	5.2	5.0	1
Conductivity in Water	E100	1654185	1	20	5.0	5.0	1
Dissolved Metals in Water by CRC ICPMS	E421	1657891	1	20	5.0	5.0	1
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1654193	1	6	16.6	5.0	1
Nitrate in Water by IC (Low Level)	E235.NO3-L	1654192	1	19	5.2	5.0	1
Nitrite in Water by IC (Low Level)	E235.NO2-L	1654191	1	19	5.2	5.0	✓
pH by Meter	E108	1654184	1	20	5.0	5.0	1
Sulfate in Water by IC	E235.SO4	1654188	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1657047	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1659751	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1657824	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1654329	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1654330	1	6	16.6	5.0	1

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water		Evaluation	on: × = QC freque	ency outside sp	ecification; ✓ =	QC frequency wit	hin specificatior
Quality Control Sample Type				unt		Frequency (%)	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Control Samples (LCS) - Continued							
TSS by Gravimetry (Low Level)	E160-L	1657052	1	18	5.5	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1654186	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1654331	1	6	16.6	5.0	✓
BTEX by Headspace GC-MS	E611A	1658600	1	17	5.8	5.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	1659896	1	10	10.0	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1659098	1	15	6.6	5.0	✓
Chloride in Water by IC	E235.CI	1654189	1	19	5.2	5.0	✓
Conductivity in Water	E100	1654185	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1657891	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1654193	1	6	16.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1654192	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1654191	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1654188	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1657047	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1659751	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1657824	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1654329	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1654330	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1657052	1	18	5.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1654331	1	6	16.6	5.0	✓
BTEX by Headspace GC-MS	E611A	1658600	1	17	5.8	5.0	✓
Chloride in Water by IC	E235.CI	1654189	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1657891	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1654193	1	6	16.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1654192	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1654191	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1654188	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1659751	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1657824	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1654329	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1654330	1	6	16.6	5.0	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Vancouver			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Vancouver			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Vancouver			brackish waters) may produce a positive bias by this method. Alternate analysis
				methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			
Chloride in Water by IC	E235.CI	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Sulfate in Water by IC	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Alkalinity Species by Titration	E290	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Vancouver			

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Client

Stantec Consulting Ltd. Gordon Lake - Phase 1 LTMP - Water Project



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
CCME PHC - F1 by Headspace GC-FID	E581.F1 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless
				qualified, all required quality control criteria of the CCME PHC method have been me including response factor and linearity requirements.

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Client

Stantec Consulting Ltd. Gordon Lake - Phase 1 LTMP - Water Project



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
	ALS Environmental - Vancouver		1	Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A ALS Environmental - Vancouver	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Vancouver	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Nitrite (as N) converted to Nitrite (as NO2)	EC235.NO2A ALS Environmental - Vancouver	Water	Calculation	Nitrite by IC measured as N is converted to the NO2 form by calculation.
Nitrate (as N) converted to Nitrate (as NO3)	EC235.NO3A ALS Environmental - Vancouver	Water	Calculation	Nitrate by IC measured as N is converted to the NO3 form by calculation.
F1-BTEX	EC580 ALS Environmental - Vancouver	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
Sum F1 to F4 (C6-C50)	EC581 ALS Environmental - Vancouver	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

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Client

Stantec Consulting Ltd. Gordon Lake - Phase 1 LTMP - Water Project



Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALS Environmental -			
	Vancouver			
Preparation for Total Organic Carbon by	EP355	Water		Preparation for Total Organic Carbon by Combustion
Combustion				
	ALS Environmental -			
	Vancouver			
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental -			
	Vancouver			
Dissolved Metals Water Filtration	EP421	Water	АРНА 3030В	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental -			
	Vancouver			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.
	ALS Environmental -			neauspace autosampler. An anquot of the neauspace is then injected into a GC-MG-Fib.
	Vancouver			
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are
	ALS Environmental -			extracted using a hexane liquid-liquid extraction.
	Vancouver			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order : **YL2401469** Page : 1 of 13

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

:---- Telephone :1 867 445 7143 :Gordon Lake - Phase 1 LTMP - Water Date Samples Received :12-Sep-2024 15:35

Date Analysis Commenced : 16-Sep-2024

C-O-C number : 20-Sep-2024 17:02

Site :
Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

:4910 53 Street

Yellowknife NT Canada X1A 2P4

No. of samples received : 8

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

: 8

- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

No. of samples analysed

Address

Telephone

Project

Sampler

PO

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	
Erin Sanchez		Vancouver Metals, Burnaby, British Columbia	
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia	
Lindsay Gung	Supervisor - Water Chemistry	Vancouver Inorganics, Burnaby, British Columbia	
Lindsay Gung	Supervisor - Water Chemistry	Vancouver Organics, Burnaby, British Columbia	
Nguyen Tran	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Owen Cheng		Vancouver Metals, Burnaby, British Columbia	
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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.

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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	Analyte CAS Number Method						Labora	ntory Duplicate (D	UP) Report		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
	Lot: 1654184)										
VA24C4184-001	Anonymous	pH		E108	0.10	pH units	8.09	8.12	0.370%	4%	
Physical Tests (QC	Lot: 1654185)										
VA24C4184-001	Anonymous	Conductivity		E100	2.0	μS/cm	705	699	0.855%	10%	
Physical Tests (QC	Lot: 1654186)										
VA24C4184-001		Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	305	306	0.360%	200%	
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%	
		Alkalinity, phenolphthalein (as		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	
		,		=							
		Alkalinity, total (as CaCO3)		E290	1.0	mg/L	305	306	0.360%	20%	
Physical Tests (QC											
VA24C3598-001	Anonymous	Solids, total dissolved [TDS]		E162-L	15.0	mg/L	202	211	4.35%	20%	
Anions and Nutrien	ts (QC Lot: 1654188)										
VA24C4184-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	104	104	0.0423%	20%	
Anions and Nutrien	ts (QC Lot: 1654189)										
VA24C4184-001	Anonymous	Chloride	16887-00-6	E235.CI	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1654191)										
VA24C4184-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1654192)										
VA24C4184-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	
Anions and Nutrien	ts (QC Lot: 1654193)										
YL2401469-001	GLG-2024-00004-009	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	
Anione and Nutrion	to (OC Let: 4654330)					, and the second					
YL2401469-001	ts (QC Lot: 1654330) GLG-2024-00004-009	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0069	0.0068	0.00008	Diff <2x LOR	
		i nospriorus, total	1120 110	20.2 0	0.0020	9/ =	0.000	0.0000	0.0000	Diii Ex Edit	
Anions and Nutrien YL2401469-001	ts (QC Lot: 1654331) GLG-2024-00004-009	Ammonio total (oc. NI)	7664-41-7	E298	0.0050	mg/l	0.0056	0.0063	0.0006	Diff <2x LOR	
		Ammonia, total (as N)	/ 004-4 1-/	E290	0.0050	mg/L	0.0000	0.0003	0.0006	Dill SZX LUK	
	Carbon (QC Lot: 1654									1	
YL2401469-001	GLG-2024-00004-009	Carbon, total organic [TOC]		E355-L	0.50	mg/L	3.23	3.29	0.06	Diff <2x LOR	
Total Metals (QC Lo	ot: 1657824)										
YL2401464-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0060	mg/L	0.0237	0.0208	0.0028	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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	Qualifie
Total Metals (QC Lo	ot: 1657824) - continued										
YL2401464-001	Anonymous	Antimony, total	7440-36-0	E420	0.00020	mg/L	0.0132	0.0130	1.60%	20%	
		Arsenic, total	7440-38-2	E420	0.00020	mg/L	0.492	0.487	1.14%	20%	
		Barium, total	7440-39-3	E420	0.00020	mg/L	0.0488	0.0489	0.322%	20%	
		Beryllium, total	7440-41-7	E420	0.000040	mg/L	<0.000040	<0.000040	0	Diff <2x LOR	
		Bismuth, total	7440-69-9	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	
		Boron, total	7440-42-8	E420	0.020	mg/L	0.329	0.306	7.40%	20%	
		Cadmium, total	7440-43-9	E420	0.0000100	mg/L	0.0000175	0.0000166	0.0000009	Diff <2x LOR	
		Calcium, total	7440-70-2	E420	0.100	mg/L	750	736	1.92%	20%	
		Cesium, total	7440-46-2	E420	0.000020	mg/L	0.000328	0.000319	2.58%	20%	
		Chromium, total	7440-47-3	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	
		Cobalt, total	7440-48-4	E420	0.00020	mg/L	0.00270	0.00267	0.862%	20%	
		Copper, total	7440-50-8	E420	0.00100	mg/L	0.00739	0.00716	0.00023	Diff <2x LOR	
		Iron, total	7439-89-6	E420	0.020	mg/L	0.091	0.088	0.002	Diff <2x LOR	
		Lead, total	7439-92-1	E420	0.000100	mg/L	0.000117	0.000110	0.000006	Diff <2x LOR	
		Lithium, total	7439-93-2	E420	0.0020	mg/L	0.0608	0.0585	3.96%	20%	
		Magnesium, total	7439-95-4	E420	0.0100	mg/L	156	156	0.359%	20%	
		Manganese, total	7439-96-5	E420	0.00020	mg/L	0.159	0.157	1.50%	20%	
		Molybdenum, total	7439-98-7	E420	0.000100	mg/L	0.00223	0.00207	7.63%	20%	
		Nickel, total	7440-02-0	E420	0.00100	mg/L	0.0222	0.0215	3.30%	20%	
		Phosphorus, total	7723-14-0	E420	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	
		Potassium, total	7440-09-7	E420	0.100	mg/L	13.3	13.2	1.39%	20%	
		Rubidium, total	7440-17-7	E420	0.00040	mg/L	0.0153	0.0151	1.24%	20%	
		Selenium, total	7782-49-2	E420	0.000100	mg/L	0.000222	0.000169	0.000052	Diff <2x LOR	
		Silicon, total	7440-21-3	E420	0.20	mg/L	4.01	4.10	2.15%	20%	
		Silver, total	7440-22-4	E420	0.000020	mg/L	0.000066	0.000067	0.000002	Diff <2x LOR	
		Sodium, total	7440-23-5	E420	0.100	mg/L	399	394	1.28%	20%	
		Strontium, total	7440-24-6	E420	0.00040	mg/L	8.82	8.59	2.66%	20%	
		Sulfur, total	7704-34-9	E420	1.00	mg/L	388	386	0.470%	20%	
		Tellurium, total	13494-80-9	E420	0.00040	mg/L	0.00151	0.00124	0.00028	Diff <2x LOR	
		Thallium, total	7440-28-0	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	
		Thorium, total	7440-29-1	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	
		Tin, total	7440-31-5	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	
		Titanium, total	7440-32-6	E420	0.00060	mg/L	<0.00060	<0.00060	0	Diff <2x LOR	
		Tungsten, total	7440-33-7	E420	0.00020	mg/L	0.00029	0.00028	0.000007	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water							Labora	tory Duplicate (D	UP) 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 L	ot: 1657824) - continued										
YL2401464-001	Anonymous	Uranium, total	7440-61-1	E420	0.000020	mg/L	0.00159	0.00155	2.30%	20%	
		Vanadium, total	7440-62-2	E420	0.00100	mg/L	0.00144	0.00138	0.00006	Diff <2x LOR	
		Zinc, total	7440-66-6	E420	0.0060	mg/L	<0.0060	<0.0060	0	Diff <2x LOR	
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	
Total Metals (QC L	ot: 1659751)										
VA24C4586-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	
Dissolved Metals (QC Lot: 1657891)										
YL2401464-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.100	mg/L	759	751	1.03%	20%	
		Magnesium, dissolved	7439-95-4	E421	0.0100	mg/L	155	153	1.36%	20%	
		Potassium, dissolved	7440-09-7	E421	0.100	mg/L	13.6	13.3	2.28%	20%	
		Sodium, dissolved	7440-23-5	E421	0.100	mg/L	398	394	0.950%	20%	
Volatile Organic Co	mpounds (QC Lot: 1658	6600)									
VA24C4496-001	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Toluene	108-88-3	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	<0.40	<0.40	0	Diff <2x LOR	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	<0.30	<0.30	0	Diff <2x LOR	
Hydrocarbons (QC	Lot: 1659896)										
CG2413527-001	Anonymous	F1 (C6-C10)		E581.F1	100	μg/L	<0.10 mg/L	<100	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

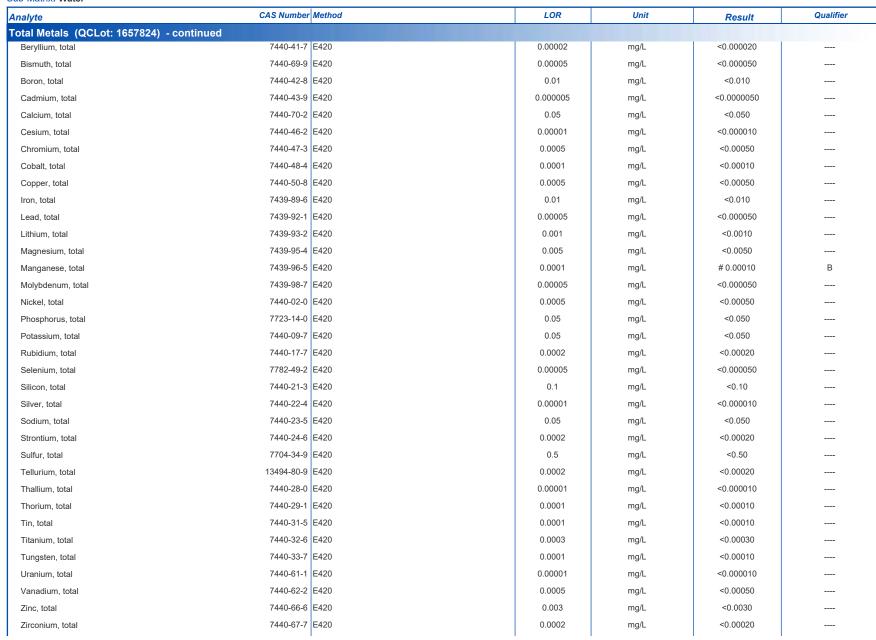
Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1654185)					
Conductivity	E100	1	μS/cm	<1.0	
Physical Tests (QCLot: 1654186)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
hysical Tests (QCLot: 1657047)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
hysical Tests (QCLot: 1657052)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
nions and Nutrients (QCLot: 1654188)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
nions and Nutrients (QCLot: 1654189)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
nions and Nutrients (QCLot: 1654191)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1654192)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
nions and Nutrients (QCLot: 1654193)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1654330)					
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	<0.0020	
nions and Nutrients (QCLot: 1654331)					
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	<0.0050	
organic / Inorganic Carbon (QCLot: 1654	329)				
Carbon, total organic [TOC]	E355-L	0.5	mg/L	<0.50	
otal Metals (QCLot: 1657824)					
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	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water

Sub-Matrix: Water





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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water

Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1659751)					
Mercury, total	7439-97-6 E508	0.000005	mg/L	<0.0000050	
Dissolved Metals (QCLot: 165789					
Calcium, dissolved	7440-70-2 E421	0.05	mg/L	<0.050	
Magnesium, dissolved	7439-95-4 E421	0.005	mg/L	<0.0050	
Potassium, dissolved	7440-09-7 E421	0.05	mg/L	<0.050	
Sodium, dissolved	7440-23-5 E421	0.05	mg/L	<0.050	
/olatile Organic Compounds (QC	Lot: 1658600)				
Benzene	71-43-2 E611A	0.5	μg/L	<0.50	
Ethylbenzene	100-41-4 E611A	0.5	μg/L	<0.50	
Toluene	108-88-3 E611A	0.5	μg/L	<0.50	
Xylene, m+p-	179601-23-1 E611A	0.4	μg/L	<0.40	
Xylene, o-	95-47-6 E611A	0.3	μg/L	<0.30	
lydrocarbons (QCLot: 1659098)					
F2 (C10-C16)	E601	100	μg/L	<100	
F3 (C16-C34)	E601	250	μg/L	<250	
F4 (C34-C50)	E601	250	μg/L	<250	
Hydrocarbons (QCLot: 1659896)					
F1 (C6-C10)	E581.F1	100	μg/L	<100	

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.

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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 Co	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number Metho	od	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1654184)									
рН	E108			pH units	7 pH units	100	98.0	102	
Physical Tests (QCLot: 1654185)									
Conductivity	E100		1	μS/cm	147 μS/cm	96.2	90.0	110	
Physical Tests (QCLot: 1654186)									
Alkalinity, phenolphthalein (as CaCO3)	E290		1	mg/L	229 mg/L	98.8	75.0	125	
Alkalinity, total (as CaCO3)	E290		1	mg/L	500 mg/L	102	85.0	115	
Physical Tests (QCLot: 1657047)									
Solids, total dissolved [TDS]	E162-	L	3	mg/L	1000 mg/L	111	85.0	115	
Physical Tests (QCLot: 1657052)									
Solids, total suspended [TSS]	E160-	L	1	mg/L	150 mg/L	93.8	85.0	115	
Anions and Nutrients (QCLot: 1654188)									
Sulfate (as SO4)	14808-79-8 E235.	SO4	0.3	mg/L	100 mg/L	101	90.0	110	
Anions and Nutrients (QCLot: 1654189)									
Chloride	16887-00-6 E235.	CI	0.5	mg/L	100 mg/L	100	90.0	110	
Anions and Nutrients (QCLot: 1654191)									
Nitrite (as N)	14797-65-0 E235.	NO2-L	0.001	mg/L	0.5 mg/L	104	90.0	110	
Anions and Nutrients (QCLot: 1654192)									
Nitrate (as N)	14797-55-8 E235.	NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	
Anions and Nutrients (QCLot: 1654193)									
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-	U	0.001	mg/L	0.03 mg/L	104	80.0	120	
Anions and Nutrients (QCLot: 1654330)									
Phosphorus, total	7723-14-0 E372-	U	0.002	mg/L	0.05 mg/L	93.3	80.0	120	
Anions and Nutrients (QCLot: 1654331)									
Ammonia, total (as N)	7664-41-7 E298		0.005	mg/L	0.2 mg/L	98.6	85.0	115	
Organic / Inorganic Carbon (QCLot: 1654329)									
Carbon, total organic [TOC]	E355-	L	0.5	mg/L	8.57 mg/L	95.8	80.0	120	
Total Metals (QCLot: 1657824)									
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	105	80.0	120	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water						Laboratory Co.	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1657824) - cont	inued								
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	107	0.08	120	
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	0.08	120	
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.0	80.0	120	
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.1	80.0	120	
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.5	80.0	120	
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.3	80.0	120	
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	102	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	102	80.0	120	
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.8	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	99.1	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	101	80.0	120	
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.6	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	95.8	80.0	120	
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	101	80.0	120	
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	96.9	80.0	120	
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.2	80.0	120	
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	101	80.0	120	
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	103	80.0	120	
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	94.5	80.0	120	
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	102	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	96.0	80.0	120	
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	101	80.0	120	
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.3	80.0	120	
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	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	103	80.0	120	
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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water						Laboratory Co.	ntrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	/ Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1657824) - conti									
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.4	80.0	120	
Total Metals (QCLot: 1659751)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.8	80.0	120	
Dissolved Metals (QCLot: 1657891)									
Calcium, dissolved	7440-70-2		0.05	mg/L	50 mg/L	93.8	80.0	120	
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	102	80.0	120	
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	100	80.0	120	
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	101	80.0	120	
Volatile Organic Compounds (QCLot:									
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	87.1	70.0	130	
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	82.8	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	88.1	70.0	130	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	97.0	70.0	130	
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	83.4	70.0	130	
Hydrocarbons (QCLot: 1659098)									
F2 (C10-C16)		E601	100	μg/L	3540 μg/L	114	70.0	130	
F3 (C16-C34)		E601	250	μg/L	7050 μg/L	102	70.0	130	
F4 (C34-C50)		E601	250	μg/L	5050 μg/L	109	70.0	130	
Hydrocarbons (QCLot: 1659896)									·
F1 (C6-C10)		E581.F1	100	μg/L	2480 μg/L	90.5	70.0	130	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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.

Content sample to Client sa	Sub-Matrix: Water		nampioo) may be subject to blue. NB	•				Matrix Spike	e (MS) Report		
Anions and Nutrients (OCLot: 1654188) VA24C4184-002 Anonymous Sulfate (as SO4) 14908-79.8 E235 SO4 NO mgl. — NO 75.0 125 Anions and Nutrients (OCLot: 1654189) VA24C4184-002 Anonymous Chloride 16887-00-8 E235 CO 1970 mgl. 2000 mgl. 98.4 75.0 125 Anions and Nutrients (OCLot: 1654181) VA24C4184-002 Anonymous Norte (as N) 14797-65-0 E235 NO2-L 10.2 mgl. 10 mgl. 102 75.0 125 Anions and Nutrients (OCLot: 1654182) VA24C4184-002 Anonymous Norte (as N) 14797-65-0 E235 NO2-L 482 mgl. 50 mgl. 98.5 75.0 125 Anions and Nutrients (OCLot: 1654183) VA24C4184-002 Anonymous Norte (as N) 14797-65-0 E235 NO3-L 482 mgl. 50 mgl. 98.1 70.0 125 Anions and Nutrients (OCLot: 1654183) VA24C4184-002 CLG-2024-00004-014 Phosphate, ortho, dissolved (as P) 14265-44-2 E378-U 0.0297 mgl. 0.03 mgl. 99.1 70.0 130 VA24C4184-002 CLG-2024-00004-014 Phosphate, lotal 7723-14.0 E372-U 0.0467 mgl. 0.05 mgl. 99.1 70.0 130 VA24C4184-002 CLG-2024-00004-014 Phosphate, lotal 7723-14.0 E372-U 0.0467 mgl. 0.05 mgl. 99.1 70.0 130 VA24C4184-002 CLG-2024-00004-014 Phosphate, lotal 7723-14.0 E372-U 0.0467 mgl. 0.05 mgl. 99.1 70.0 130 VA24C4184-002 CLG-2024-00004-014 Cmbon, lotal organic [TOC] — E385-L 5.13 mgl. 5 mgl. 99.1 70.0 130 VA24C4184-002 ClG-2024-00004-014 Cmbon, lotal organic [TOC] — E385-L 5.13 mgl. 5 mgl. 99.1 70.0 130 VA24C4184-002 Cmbon, lotal 7440-99 E420 NO mgl. 99.8 70.0 130 VA24C4184-002 Cmbon, lotal 7440-99 E420 NO mgl. 99.8 70.0 130 VA24C4184-002 Cmbon, lotal 7440-99 E420 NO mgl. 99.8 70.0 130 VA24C4184-002 Cmbon, lotal 7440-99 E420 NO mgl. 99.8 70.0 130 VA24C4184-002 Cmbon, lotal 7440-99 E420 NO mgl. 99.8 70.0 130 VA24C4184-002 Cmbon, lotal 7440-99 E420 NO mgl. 99.8 70.0 130 VA24C4184-002 Cmbon, lotal 7440-99 E420 NO m						Spi	ike	Recovery (%)	Recovery	Limits (%)	
VA24C4184-002	Laboratory sample	ID Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1654189) VA26C4184-002 Anonymous Nitrie (as N) 14797-65-0 E235 CJ 1970 mg/L 2000 mg/L 98.4 75.0 125 Anions and Nutrients (QCLot: 1654191) VA26C4184-002 Anonymous Nitrie (as N) 14797-65-0 E235 NO2-L 10.2 mg/L 10 mg/L 102 75.0 125 Anions and Nutrients (QCLot: 1654192) VA26C4184-002 Anonymous Nitrie (as N) 14797-55-8 E235 NO3-L 40.2 mg/L 50 mg/L 98.5 75.0 125 Anions and Nutrients (QCLot: 1654193) VA26C4184-002 GLG-2024-00004-014 Phosphate, ortho-, dissolved (as P) 14265-44-2 E378-U 0.0297 mg/L 0.03 mg/L 99.1 70.0 130 Anions and Nutrients (QCLot: 1654393) VL2401489-002 GLG-2024-00004-014 Phosphate, ortho-, dissolved (as P) 14265-44-2 E378-U 0.0467 mg/L 0.05 mg/L 99.4 70.0 130 Anions and Nutrients (QCLot: 16543301) VL2401489-002 GLG-2024-00004-014 Amonia, total (as N) 7684-41-7 E298 0.0983 mg/L 0.1 mg/L 96.3 75.0 125 Organic / Inorganic Carbon (QCLot: 1654329) VL2401489-002 GLG-2024-00004-014 Amonia, total (as N) 7684-41-7 E298 0.0983 mg/L 0.1 mg/L 96.3 75.0 125 Organic / Inorganic Carbon (QCLot: 1654329) VL2401489-002 GLG-2024-00004-014 Amonia, total (as N) 7429-05-5 E420 0.0886 mg/L 0.4 mg/L 96.4 70.0 130 Amonia, total (as N) 7440-38-2 E420 ND mg/L ND 70.0 130 Amonia, total Amo	Anions and Nut	rients (QCLot: 1654188	8)								
VA2AC4184-002	VA24C4184-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L		ND	75.0	125	
Anions and Nutrients (QCLot: 1654191)	Anions and Nut	rients (QCLot: 1654189	9)								
VA24C4184-002 Anonymous Nitrite (as N) 14797-95-0 E235.NO2-L 10.2 mg/L 10 mg/L 102 75.0 125	VA24C4184-002	Anonymous	Chloride	16887-00-6	E235.CI	1970 mg/L	2000 mg/L	98.4	75.0	125	
Anions and Nutrients (QCLot: 1654192)	Anions and Nut	rients (QCLot: 165419	1)								
VA24C4184-002	VA24C4184-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	10.2 mg/L	10 mg/L	102	75.0	125	
Anions and Nutrients (QCLot: 1654193) Y1,2401469-002 GLG-2024-00004-014 Phosphate, ortho-, dissolved (as P) 14265-44-2 E378-U 0.0297 mg/L 0.03 mg/L 99.1 70.0 130	Anions and Nut	rients (QCLot: 1654192	2)								
Y1_2401469-002 GLG-2024-00004-014 Phosphate, ortho-, dissolved (as P) 14265-44-2 E378-U 0.0297 mg/L 0.03 mg/L 99.1 70.0 130	VA24C4184-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	49.2 mg/L	50 mg/L	98.5	75.0	125	
Anions and Nutrients (QCLot: 1654330) YL2401469-002 CLG-2024-00004-014 Phosphorus, total 7723-14-0 E372-U 0.0467 mg/L 0.05 mg/L 93.4 70.0 130 Anions and Nutrients (QCLot: 1554331) YL2401469-002 CLG-2024-00004-014 Ammonia, total (as N) 7664-41-7 E298 0.0963 mg/L 0.1 mg/L 96.3 75.0 125 Organic / Carbon (QCLot: 1654329) YL2401469-002 CLG-2024-00004-014 Carbon, total organic (TOC) E365-L 5.13 mg/L 5 mg/L 102 70.0 130 Total Metals (QCLot: 1657824) YL2401464-002 Anonymous Aluminum, total 7429-90-5 E420 0.386 mg/L 0.4 mg/L 99.8 70.0 130 Antimony, total 7440-38-0 E420 0.0999 mg/L 0.04 mg/L 99.8 70.0 130 Barium, total 7440-38-2 E420 ND mg/L ND 70.0 130 Beryllium, total 7440-41-7 E420 0.0778 mg/L 0.08 mg/L 97.2 70.0 130 Beryllium, total 7440-42-8 E420 ND mg/L ND 70.0 130 Boron, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-42-8 E420 0.00709 mg/L 0.008 mg/L 92.2 70.0 130 Cadmium, total 7440-42-8 E420 0.00709 mg/L 0.008 mg/L 92.2 70.0 130 Cadmium, total 7440-46-2 E420 0.0091 mg/L 0.009	Anions and Nut	rients (QCLot: 165419:	3)								
Y1_2401469-002 GLG-2024-00004-014 Phosphorus, total 7723-14-0 E372-U 0.0467 mg/L 0.05 mg/L 93.4 70.0 130	YL2401469-002	GLG-2024-00004-014	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0297 mg/L	0.03 mg/L	99.1	70.0	130	
Anions and Nutrients (QCLot: 1654331) YL2401469-002	Anions and Nut	rients (QCLot: 1654330	0)								
Anions and Nutrients (QCLot: 1654331) YL2401469-002	YL2401469-002	GLG-2024-00004-014	Phosphorus, total	7723-14-0	E372-U	0.0467 mg/L	0.05 mg/L	93.4	70.0	130	
\text{YL2401469-002} \text{GLG-2024-0004-014} \text{Ammonia, total (as N)} \text{7 664-41-7} \text{E298} \text{0.0963 mg/L} \text{0.1 mg/L} \text{96.3} \text{75.0} \text{125} \text{Drganic / Inorganic Carbon (QCLot: 1654329)} \text{VL2401469-002} \text{GLG-2024-00004-014} \text{Carbon, total organic [TOC]} \text{E355-L} \text{5.13 mg/L} \text{5 mg/L} \text{102} \text{70.0} \text{130} \text{Total Metals (QCLot: 1657824)} \text{VL2401464-002} \text{Alminum, total} \text{7429-90.5} \text{E420} \text{0.386 mg/L} 0.4 mg/L \text{99.8} \text{70.0}						3	3				
Carbon (QCLot: 1654329) Y1_2401469-002 GLG-2024-00004-014 Carbon, total organic [TOC] E355-L 5.13 mg/L 5 mg/L 102 70.0 130 Total Metals (QCLot: 1657824) Y1_2401464-002 Anonymous Aluminum, total 7429-90-5 E420 0.386 mg/L 0.4 mg/L 96.4 70.0 130 Antimony, total 7440-36-0 E420 0.0399 mg/L 0.04 mg/L 99.8 70.0 130 Arsenic, total 7440-38-2 E420 ND mg/L ND 70.0 130 Barium, total 7440-39-3 E420 ND mg/L ND 70.0 130 Beryllium, total 7440-69-9 E420 0.0778 mg/L 0.08 mg/L 97.2 70.0 130 Bismuth, total 7440-42-8 E420 0.0778 mg/L 0.08 mg/L 88.7 70.0 130 Gadmium, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-70-2 E420 ND mg/L ND 70.0 130 Calcium, total 7440-70-2 E420 ND mg/L ND 70.0 130 Calcium, total 7440-70-3 E420 0.00709 mg/L 0.08 mg/L 88.7 70.0 130 Calcium, total 7440-70-3 E420 0.0071 mg/L 0.08 mg/L 92.2 70.0 130 Chromium, total 7440-47-3 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Chromium, total 7440-48-4 E420 0.0325 mg/L 0.04 mg/L 90.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0335 mg/L 0.04 mg/L 90.2 70.0 130 Cobalt, total 7439-89-6 E420 0.0325 mg/L 0.04 mg/L 93.6 70.0 130 Iron, total 7439-89-6 E420 0.0335 mg/L 0.04 mg/L 93.6 70.0 130 Lead, total 7439-89-6 E420 0.0338 mg/L 0.04 mg/L 97.8 70.0 130 Lead, total 7439-89-6 E420 0.0338 mg/L 0.04 mg/L 97.8 70.0 130 Lead, total 7439-89-6 E420 0.0338 mg/L 0.04 mg/L 97.8 70.0 130 Lead, total 7439-89-6 E420 0.0338 mg/L 0.04 mg/L 97.8 70.0 130 Lead, total 7439-89-6 E420 0.0338 mg/L 0.04 mg/L 97.8 70.0 130 Lead, total 7439-89-6 E420 0.098 mg/L 0.04 mg/L 97.8 70.0 130 Lithium, total 7439-89-6 E420 0.098 mg/L 0.04 mg/L				7664-41-7	F298	0.0963 mg/l	0.1 mg/l	96.3	75.0	125	
YL2401469-002 GLG-2024-00004-014 Carbon, total organic [TOC] E355-L 5.13 mg/L 5 mg/L 102 70.0 130				7004 41 7	2200	0.0000 mg/L	0.1 mg/L	00.0	70.0	120	
Total Metals (QCLot: 1657824)					E355 I	5.13 mg/l	5 mg/l	102	70.0	130	
YL2401464-002 Anonymous Aluminum, total 7429-90-5 E420 0.386 mg/L 0.4 mg/L 96.4 70.0 130 Antimony, total 7440-36-0 E420 0.0399 mg/L 0.04 mg/L 99.8 70.0 130 Arsenic, total 7440-38-2 E420 ND mg/L ND 70.0 130 Barium, total 7440-39-3 E420 ND mg/L ND 70.0 130 Beryllium, total 7440-49-17 E420 0.0778 mg/L 0.08 mg/L 97.2 70.0 130 Bismuth, total 7440-49-9 E420 0.0162 mg/L 0.02 mg/L 81.0 70.0 130 Boron, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-70-2 E420 ND mg/L ND 70.0 130 Casium, total 7440-70-2 E420 ND mg/L ND 70.0 130 Chromium, total <td< td=""><td></td><td></td><td>Carbon, total organic [100]</td><td></td><td>L333-L</td><td>3.13 Hig/L</td><td>3 Hg/L</td><td>102</td><td>70.0</td><td>130</td><td></td></td<>			Carbon, total organic [100]		L333-L	3.13 Hig/L	3 Hg/L	102	70.0	130	
Antimony, total 7440-36-0 E420 0.0399 mg/L 0.04 mg/L 99.8 70.0 130 Arsenic, total 7440-38-2 E420 ND mg/L ND 70.0 130 Barium, total 7440-39-3 E420 ND mg/L ND 70.0 130 Beryllium, total 7440-41-7 E420 0.0778 mg/L 0.08 mg/L 97.2 70.0 130 Bismuth, total 7440-69-9 E420 0.0162 mg/L 0.02 mg/L 81.0 70.0 130 Boron, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-43-9 E420 0.0709 mg/L 0.08 mg/L 88.7 70.0 130 Calcium, total 7440-40-9 E420 ND mg/L ND 70.0 130 Calcium, total 7440-40-9 E420 ND mg/L ND 70.0 130 Calcium, total 7440-46-2 E420 ND mg/L ND 70.0 130 Cesium, total 7440-46-2 E420 0.0201 mg/L 0.02 mg/L 101 70.0 130 Chromium, total 7440-47-3 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 81.2 70.0 130 Lead, total 7439-89-6 E420 0.0338 mg/L 0.04 mg/L 81.2 70.0 130 Lithium, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130	<u> </u>										
Arsenic, total 7440-38-2 E420 ND mg/L ND 70.0 130 Barium, total 7440-39-3 E420 ND mg/L ND 70.0 130 Beryllium, total 7440-41-7 E420 0.0778 mg/L 0.08 mg/L 97.2 70.0 130 Bismuth, total 7440-69-9 E420 0.0162 mg/L 0.02 mg/L 81.0 70.0 130 Boron, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-43-9 E420 0.0709 mg/L 0.008 mg/L 88.7 70.0 130 Calcium, total 7440-40-2 E420 ND mg/L ND 70.0 130 Cesium, total 7440-46-2 E420 ND mg/L ND 70.0 130 Chromium, total 7440-47-3 E420 0.0201 mg/L 0.02 mg/L 101 70.0 130 Chromium, total 7440-48-4 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 90.2 70.0 130 Iron, total 7439-89-6 E420 0.0325 mg/L 0.04 mg/L 93.6 70.0 130 Lead, total 7439-93-2 E420 0.0338 mg/L 0.04 mg/L 93.6 70.0 130 Lithium, total 7439-93-2 E420 0.0338 mg/L 0.04 mg/L 97.8 70.0 130 Lithium, total 7439-93-2 E420 0.0338 mg/L 0.04 mg/L 97.8 70.0 130 Lithium, total 7439-93-2 E420 0.0338 mg/L 0.02 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130	YL2401464-002	Anonymous	· ·			_	_				
Barium, total 7440-39-3 E420 ND mg/L ND 70.0 130			**			_	, and the second				
Beryllium, total 7440-41-7 E420 0.0778 mg/L 0.08 mg/L 97.2 70.0 130 Bismuth, total 7440-69-9 E420 0.0162 mg/L 0.02 mg/L 81.0 70.0 130 Boron, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-43-9 E420 0.00709 mg/L 0.008 mg/L 88.7 70.0 130 Calcium, total 7440-70-2 E420 ND mg/L ND 70.0 130 Cesium, total 7440-46-2 E420 ND mg/L ND 70.0 130 Chromium, total 7440-47-3 E420 0.0201 mg/L 0.02 mg/L 101 70.0 130 Chromium, total 7440-48-4 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 90.2 70.0 130 Lead, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.0338 mg/L 0.04 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			· ·			_					
Bismuth, total 7440-69-9 E420 0.0162 mg/L 0.02 mg/L 81.0 70.0 130 Boron, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-43-9 E420 0.00709 mg/L 0.008 mg/L 88.7 70.0 130 Calcium, total 7440-40-2 E420 ND mg/L ND 70.0 130 Cesium, total 7440-46-2 E420 0.0201 mg/L 0.02 mg/L 101 70.0 130 Chromium, total 7440-47-3 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 81.2 70.0 130 Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Magnesium, total 7439-95-4 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130			· ·			_					
Boron, total 7440-42-8 E420 ND mg/L ND 70.0 130 Cadmium, total 7440-43-9 E420 0.00709 mg/L 0.008 mg/L 88.7 70.0 130 Calcium, total 7440-70-2 E420 ND mg/L ND 70.0 130 Cesium, total 7440-46-2 E420 0.0201 mg/L 0.02 mg/L 101 70.0 130 Chromium, total 7440-47-3 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 90.2 70.0 130 Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 93.6 70.0 130 Lithium, total 7439-93-2 E420 0.0388 mg/L 0.04 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			* '				Ü				
Cadmium, total 7440-43-9 E420 0.00709 mg/L 0.008 mg/L 88.7 70.0 130 Calcium, total 7440-70-2 E420 ND mg/L ND 70.0 130 Cesium, total 7440-46-2 E420 0.0201 mg/L 0.02 mg/L 101 70.0 130 Chromium, total 7440-47-3 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 81.2 70.0 130 Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130 <td></td> <td></td> <td>· ·</td> <td></td> <td></td> <td>_</td> <td>0.02 mg/L</td> <td></td> <td></td> <td></td> <td></td>			· ·			_	0.02 mg/L				
Calcium, total 7440-70-2 E420 ND mg/L ND 70.0 130 Cesium, total 7440-46-2 E420 0.0201 mg/L 0.02 mg/L 101 70.0 130 Chromium, total 7440-47-3 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 81.2 70.0 130 Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			Boron, total	7440-42-8	E420	ND mg/L		ND		130	
Cesium, total 7440-46-2 E420 0.0201 mg/L 0.02 mg/L 101 70.0 130 Chromium, total 7440-47-3 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 81.2 70.0 130 Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			Cadmium, total	7440-43-9	E420	0.00709 mg/L	0.008 mg/L	88.7	70.0	130	
Chromium, total 7440-47-3 E420 0.0738 mg/L 0.08 mg/L 92.2 70.0 130 Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 81.2 70.0 130 Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			Calcium, total	7440-70-2	E420	ND mg/L		ND	70.0	130	
Cobalt, total 7440-48-4 E420 0.0361 mg/L 0.04 mg/L 90.2 70.0 130 Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 81.2 70.0 130 Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			Cesium, total	7440-46-2	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	
Copper, total 7440-50-8 E420 0.0325 mg/L 0.04 mg/L 81.2 70.0 130 Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			Chromium, total	7440-47-3	E420	0.0738 mg/L	0.08 mg/L	92.2	70.0	130	
Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			Cobalt, total	7440-48-4	E420	0.0361 mg/L	0.04 mg/L	90.2	70.0	130	
Iron, total 7439-89-6 E420 3.75 mg/L 4 mg/L 93.6 70.0 130 Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			Copper, total	7440-50-8	E420	0.0325 mg/L	0.04 mg/L	81.2	70.0	130	
Lead, total 7439-92-1 E420 0.0338 mg/L 0.04 mg/L 84.5 70.0 130 Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130						_	_				
Lithium, total 7439-93-2 E420 0.196 mg/L 0.2 mg/L 97.8 70.0 130 Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130			' '				_				
Magnesium, total 7439-95-4 E420 ND mg/L ND 70.0 130						_	_				
			· ·				_				
						_					
Molybdenum, total 7439-98-7 E420 0.0420 mg/L 0.04 mg/L 105 70.0 130						_					

Page : 13 of 13 Work Order : YL2401469

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Sub-Matrix: Water							Matrix Spik	re (MS) Report		
					Spi	ike	Recovery (%)	Recovery	Limits (%)	
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QC	Lot: 1657824) - con	tinued								
YL2401464-002	Anonymous	Nickel, total	7440-02-0	E420	0.0671 mg/L	0.08 mg/L	83.9	70.0	130	
		Phosphorus, total	7723-14-0	E420	19.7 mg/L	20 mg/L	98.7	70.0	130	
		Potassium, total	7440-09-7	E420	ND mg/L		ND	70.0	130	
		Rubidium, total	7440-17-7	E420	0.0386 mg/L	0.04 mg/L	96.4	70.0	130	
		Selenium, total	7782-49-2	E420	0.0766 mg/L	0.08 mg/L	95.7	70.0	130	
		Silicon, total	7440-21-3	E420	19.3 mg/L	20 mg/L	96.6	70.0	130	
		Silver, total	7440-22-4	E420	0.00756 mg/L	0.008 mg/L	94.5	70.0	130	
		Sodium, total	7440-23-5	E420	ND mg/L		ND	70.0	130	
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130	
		Sulfur, total	7704-34-9	E420	ND mg/L		ND	70.0	130	
		Tellurium, total	13494-80-9	E420	0.0794 mg/L	0.08 mg/L	99.3	70.0	130	
		Thallium, total	7440-28-0	E420	0.00674 mg/L	0.008 mg/L	84.3	70.0	130	
		Thorium, total	7440-29-1	E420	0.0383 mg/L	0.04 mg/L	95.8	70.0	130	
		Tin, total	7440-31-5	E420	0.0376 mg/L	0.04 mg/L	94.0	70.0	130	
		Titanium, total	7440-32-6	E420	0.0782 mg/L	0.08 mg/L	97.8	70.0	130	
		Tungsten, total	7440-33-7	E420	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	
		Uranium, total	7440-61-1	E420	0.00769 mg/L	0.008 mg/L	96.2	70.0	130	
		Vanadium, total	7440-62-2	E420	0.192 mg/L	0.2 mg/L	96.1	70.0	130	
		Zinc, total	7440-66-6	E420	0.682 mg/L	0.8 mg/L	85.2	70.0	130	
		Zirconium, total	7440-67-7	E420	0.0826 mg/L	0.08 mg/L	103	70.0	130	
otal Metals (QC	Lot: 1659751)									
VA24C4586-006	Anonymous	Mercury, total	7439-97-6	E508	0.0000964 mg/L	0 mg/L	96.4	70.0	130	
Dissolved Metals	(QCLot: 1657891)									
YL2401464-002	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L		ND	70.0	130	
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130	
		Potassium, dissolved	7440-09-7	E421	ND mg/L		ND	70.0	130	
		Sodium, dissolved	7440-23-5	E421	ND mg/L		ND	70.0	130	
/olatile Organic (Compounds (QCLot	t: 1658600)								
VA24C4496-001	Anonymous	Benzene	71-43-2	E611A	93.5 μg/L	100 μg/L	93.5	60.0	140	
		Ethylbenzene	100-41-4	E611A	89.8 µg/L	100 μg/L	89.8	60.0	140	
		Toluene	108-88-3	E611A	95.1 μg/L	100 μg/L	95.1	60.0	140	
		Xylene, m+p-	179601-23-1	E611A	208 μg/L	200 μg/L	104	60.0	140	
		Xylene, o-	95-47-6	E611A	89.6 µg/L	100 µg/L	89.6	60.0	140	



Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Canada Toll Free: 1 800 668 9878

Page 1 of 1

e:	Time:		Date:			d by:	Received by:		J.ii	Time:		Date:		Received by:	12-Sep-24 Time:	Magda Celejewski Date:	Released by:
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THE LABORATION 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.

ALS Canada Ltd.



CERTIFICATE OF ANALYSIS

Work Order : **YL2401501** Page : 1 of 14

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg
Address : 4910 53 Street Address : 314 Old Airpor

: 4910 53 Street Address : 314 Old Airport Road, Unit 116
Yellowknife NT Canada X1A 2P4 Yellowknife NT Canada X1A 3T3

Yellowknife NT Canada X1A 3T3
Telephone : 1 867 445 7143

Project : Gordon Lake - Phase 1 LTMP - Water Date Samples Received : 13-Sep-2024 09:54

Sampler : ---Site :

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

No. of samples received : 11
No. of samples analysed : 11

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
- Surrogate Control Limits

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

Telephone

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	
Angelo Salandanan	Lab Assistant	Metals, Burnaby, British Columbia	
George Huang	Supervisor - Inorganic	Organics, Calgary, Alberta	
Joshua Stessun	Laboratory Analyst	Organics, Calgary, Alberta	
Jyotsnarani Devi	Laboratory Analyst	Organics, Calgary, Alberta	
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia	
Leon Yang	Analyst	Inorganics, Burnaby, British Columbia	
Nguyen Tran	Laboratory Analyst	Organics, Calgary, Alberta	
Owen Cheng		Metals, Burnaby, British Columbia	

Page : 2 of 14 Work Order : YL2401501

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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 units
μg/L	micrograms per litre
μS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less 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.

Sample Comments

Sample	Client Id	Comment
YL2401501-005	GLG-2024-00004-005	Sample(s) 005: Water sample for VOC analysis contained > 5% headspace. Results may be biased low.
YL2401501-005	GLG-2024-00004-005	Water sample for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

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).

>: greater than.

3 of 14 YL2401501 Page Work Order

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					4-001	4-002	4-003	4-004	4-005
			Client samp	ling date / time	12-Sep-2024 13:00	12-Sep-2024 13:30	12-Sep-2024 12:15	12-Sep-2024 11:35	12-Sep-2024 12:45
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401501-001	YL2401501-002	YL2401501-003	YL2401501-004	YL2401501-005
					Result	Result	Result	Result	Result
Physical Tests						100			
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	302	482	717	228	
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	302	482	717	228	
Conductivity		E100/VA	2.0	μS/cm	2750	5910	2380	847	
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	1670	1370	1230	427	1230
рН		E108/VA	0.10	pH units	7.43	8.00	7.71	8.03	
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	2610	5070	1970	655	
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	45.4	3.8	53.2	3.8	
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	1660	1380	1210	438	
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.972	0.904	1.85	0.200	0.0762
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	11.6	180	35.2	3.59	
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	<0.100 DLDS	<0.250 DLDS	0.107	0.0649	
		A							
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L	<0.443	<1.11	0.474	0.287	
Nitrato + Nitrito (ac N)		VA	0.0050	ma/l	<0.102	<0.255	0.107	0.0700	
Nitrate + Nitrite (as N)		EC235.N+N/V Δ	0.0000	mg/L	~ 0.102	~ 0.200	0.107	0.0700	
Nitrite (as N)	14797-65-0	E235.NO2-L/V	0.0010	mg/L	<0.0200 DLDS	<0.0500 DLDS	<0.0200 DLDS	0.0051	
		A							
Nitrite (as NO2)	14797-65-0	EC235.NO2A/	0.0030	mg/L	<0.0656	<0.164	<0.0656	0.0167	
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0140	0.0504	0.102	0.0172	0.123
Sulfate (as SO4)		E235.SO4/VA	0.30	mg/L	1490	2870	739	238	
Organic / Inorganic Carbon									
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	2.97	9.92	21.6	13.2	9.62
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.112	0.0150	0.0278	0.0354	0.141
1 ''''	7 120 00-0		1	g. –					-

Page Work Order 4 of 14 YL2401501

Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water		Cl	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				4-001	4-002	4-003	4-004	4-005
		·	ling date / time	12-Sep-2024 13:00	12-Sep-2024 13:30	12-Sep-2024 12:15	12-Sep-2024 11:35	12-Sep-2024 12:45
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401501-001	YL2401501-002	YL2401501-003	YL2401501-004	YL2401501-005
Total Metals				Result	Result	Result	Result	Result
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	<0.00020 DLA	0.00072	<0.00010	0.00055	0.00069
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.0217	0.0375	0.0172	0.00529	0.0202
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0227	0.0145	0.281	0.0508	0.0563
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000100 DLA	<0.000250 DLA	<0.000050	<0.000050	<0.000100 DLA
Boron, total	7440-42-8 E420/VA	0.010	mg/L	0.147	0.150	0.110	0.026	0.072
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	0.000401	0.0131	0.0000050	0.000153	0.0000815
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	454	398	343	141	428
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	0.000035	<0.000050 DLA	<0.000010	0.000015	<0.000020 DLA
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00100 DLA	<0.00250 DLA	0.00065	<0.00050	0.00116
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.0152	0.639	0.0242	0.00671	0.0117
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	<0.00100 DLA	<0.00250 DLA	<0.00050	0.00628	0.00184
Iron, total	7439-89-6 E420/VA	0.010	mg/L	44.0	2.45	22.6	1.73	7.70
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	0.000604	0.000451	<0.000050	0.00110	0.00118
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0326	0.0399	0.0328	0.0039	0.0048
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	131	92.0	91.6	18.2	38.2
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	1.26	11.1	4.48	5.10	1.73
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.000889	0.00433	0.00108	0.00237	0.00412
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.00555	1.64	0.00129	0.0171	0.0118
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.100 DLA	<0.250 DLA	0.098	<0.050	0.118
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	53.2	76.6	26.3	4.34	14.9
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00459	0.00248	0.00175	0.00337	0.00317
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.000144	0.000970	0.000162	0.000135	0.000408
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	12.4	6.65	10.6	7.59	8.09
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000020 DLA	<0.000050 DLA	0.000011	0.000031	0.000062
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	66.9	991	122	18.1	45.8
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	4.93	3.57	2.24	0.447	1.78
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	537	996	272	83.1	331
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	0.00058	<0.00100 DLA	0.00031	<0.00020	<0.00040 DLA

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project

13:00 13:30 12:15 11:35 12:45	Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
Analyse CAS Number MethodsLab LOR Unit YL2401591-002 YL2401591-003 YL2401591-004 YL2401591-004 YL2401591-004 YL2401591-004 YL2401591-004 YL2401591-005 YL2401591-004 YL2401591-004 YL2401591-005 YL2401591-0	(Matrix: Water)					4-001	4-002	4-003	4-004	4-005
Probable				Client samp	ling date / time	·	· ·	·	·	12-Sep-2024 12:45
Total Metals	Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401501-001	YL2401501-002	YL2401501-003		YL2401501-005
Tabilium, total						Result	Result	Result	Result	Result
Thorium, total T440-29-1 E420VA 0.00010 mg/L <0.00020 ² <0.00050 ² <0.00011 <0.00010 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00021 <0.00			E4000/A	0.000040		-0.000000 PLA	*0 0000E0 PLA	*0.000040	*0.000040	40 000000 PLA
Tin, total 7440-31-8 E420VA 0.00010 mg/L <0.00020 ^{ms} 0.00000 ^{ms} 0.00010 0.0031 <0.0010 0.0034 Titanium, total 7440-32-8 E420VA 0.00030 mg/L 0.00060 ^{ms} 0.00060 ^{ms} 0.00060 <0.00010 ^{ms} 0.00030 <0.00030	·				_					
Titanium, total 7440-32-6 E420/VA 0.00030 mg/L <0.00060 ⁸⁶⁴ <0.00150 ⁸⁶⁴ <0.00060 ⁸⁶⁴ <0.00000 <0.00000 <0.00000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.0000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.0000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.0000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.0000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.000000 <0.00000000										
Tungsten, total					_					
Uranium, total 7440-61-1 E420/VA 0.000010 mg/L 0.00105 0.0100 0.0133 0.00112 0.013 Vanadium, total 7440-66-6 E420/VA 0.00050 mg/L 4.00100 *** < 0.00250 *** 0.00166 < 0.00060	, '				_					
Vanadium, total 7440-62-2 E420/VA 0.00050 mg/L <0.00100 ≤0.00250 ≤0.00166 <0.00050 <0.00100 ≤0.00160 <0.00100 ≤0.00160 <0.00100 <0.00100 ≤0.00160 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00010 <0.00100 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.00010 <0.000										
Zinc, total	· ·				_					
Zirconium, total	Vanadium, total				mg/L					<0.00100 DLA
Dissolved Metals Calcium, dissolved 7440-70-2 E421/VA 0.050 mg/L 454 401 330 143	Zinc, total	7440-66-6	E420/VA		mg/L					<0.0060 DLA
Calcium, dissolved	Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00040 DLA	<0.00100 DLA	0.00341	0.00023	<0.00040 DLA
Magnesium, dissolved	Dissolved Metals									
Potassium, dissolved 7440-09-7 F421/VA 0.050 mg/L 50.4 73.3 25.3 4.45	Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	454	401	330	143	
Sodium, dissolved 7440-23-5 E421/VA 0.050 mg/L 61.2 925 118 20.5 Dissolved metals filtration location EP421/VA Field Field Field Field Field Volatile Organic Compounds [BTEXS+MTBE] Eenzene 71-43-2 E611A/CG 0.50 μg/L 3.06 <0.50 <0.50 <0.50 <0.50 <0.50 Ethylbenzene 100-41-4 E611A/CG 0.50 μg/L <0.50 <0.50 <0.50 <0.50 <0.50 < Toluene 108-88-3 E611A/CG 0.50 μg/L 0.77 <0.50 <0.50 <0.50 <0.50 Xylene, m+p- 179601-23-1 E611A/CG 0.50 μg/L 0.77 <0.50 <0.50 <0.50 <0.50 Xylene, o- 95-47-6 E611A/CG 0.50 μg/L 0.77 <0.50 <0.50 <0.50 <0.50 Xylenes, total 1330-20-7 E611A/CG 0.75 μg/L 0.77 <0.75 <0.75 <0.75 <0.75 BTEX, total 1634-04-4 E611A/CG 0.50 μg/L <0.50 Hydrocarbons E581.FI/CG 100 μg/L <100 <100 <100 <100 F1-BTEX EC580/CG 100 μg/L <100 <100 <100 <100 F1-BTEX E0520/CG 100 μg/L <100 <100 <100 <100 F1-BTEX E0520/CG 100 μg/L <100 <100 <100 <100 F1-BTEX E0520/CG 100 μg/L <100 <100 <100 <100 F1-BTEX E0520/CG 100 μg/L <100 <100 <100 <100 <100 F1-BTEX E0520/CG 100 μg/L <100 <100 <100 <100 <100 F1-BTEX E0520/CG 100 μg/L <100 <100 <100 <100 <100 F1-BTEX F1-BTEX F1-BTEX F1-BTEX F1-BTEX F1-BTEX F1-BTEX F1-BTEX F1-BTEX	Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	129	93.4	93.8	19.7	
Dissolved metals filtration location	Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	50.4	73.3	25.3	4.45	
Volatile Organic Compounds (BTEXS+MTBE)	Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	61.2	925	118	20.5	
Benzene	Dissolved metals filtration location		EP421/VA	-	-	Field	Field	Field	Field	
Ethylbenzene	Volatile Organic Compounds [BTEXS+MTBE]									
Toluene 108-88-3 E611A/CG 0.50 µg/L 2.23 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <	Benzene	71-43-2	E611A/CG	0.50	μg/L	3.06	<0.50	<0.50	<0.50	
Xylene, m+p- 179601-23-1 E611A/CG 0.50 μg/L 0.77 <0.50 <0.50 <0.50	Ethylbenzene	100-41-4	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	
Xylene, o- 95-47-6 E611A/CG 0.50 μg/L <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.	Toluene	108-88-3	E611A/CG	0.50	μg/L	2.23	<0.50	<0.50	<0.50	
Xylenes, total 1330-20-7 E611A/CG 0.75 μg/L 0.77 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <0.75 <	Xylene, m+p-	179601-23-1	E611A/CG	0.50	μg/L	0.77	<0.50	<0.50	<0.50	
BTEX, total E611A/CG 1.2 μg/L 6.1 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.2 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.2 </td <td>Xylene, o-</td> <td>95-47-6</td> <td>E611A/CG</td> <td>0.50</td> <td>μg/L</td> <td><0.50</td> <td><0.50</td> <td><0.50</td> <td><0.50</td> <td></td>	Xylene, o-	95-47-6	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	
Volatile Organic Compounds [Fuels] Methyl-tert-butyl ether [MTBE] 1634-04-4 E611A/CG 0.50 μg/L	Xylenes, total	1330-20-7	E611A/CG	0.75	μg/L	0.77	<0.75	<0.75	<0.75	
Methyl-tert-butyl ether [MTBE] 1634-04-4 E611A/CG 0.50 μg/L	BTEX, total		E611A/CG	1.2	μg/L	6.1	<1.2	<1.2	<1.2	
Styrene 100-42-5 E611A/CG 0.50 μg/L	Volatile Organic Compounds [Fuels]									
Hydrocarbons F1 (C6-C10) E581.F1/CG 100 μg/L <100		1634-04-4	E611A/CG	0.50	μg/L					<0.50
F1 (C6-C10) E581.F1/CG 100 μg/L <100	Styrene	100-42-5	E611A/CG	0.50	μg/L					<0.50
F1 (C6-C10) E581.F1/CG 100 μg/L <100	Hydrocarbons									
			E581.F1/CG	100	μg/L	<100	<100	<100	<100	
	F1-BTEX		EC580/CG	100	μg/L	<100	<100	<100	<100	
F2 (C10-C16)	F2 (C10-C16)		E601/CG	100		110	<100	<100	170	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					4-001	4-002	4-003	4-004	4-005
			Client samp	ling date / time	12-Sep-2024 13:00	12-Sep-2024 13:30	12-Sep-2024 12:15	12-Sep-2024 11:35	12-Sep-2024 12:45
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401501-001	YL2401501-002	YL2401501-003	YL2401501-004	YL2401501-005
					Result	Result	Result	Result	Result
Hydrocarbons									
F3 (C16-C34)	E	601/CG	250	μg/L	<250	<250	<250	<250	
F4 (C34-C50)	E	601/CG	250	μg/L	<250	<250	<250	<250	
Hydrocarbons, total (C6-C50)	n/a E	C581/CG	400	μg/L	<400	<400	<400	<400	
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	86.2	85.4	86.0	86.4	
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	108	97.4	96.4	108	107
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	87.7	86.5	83.5	83.4	84.2
Difluorobenzene, 1,4-	540-36-3 E	611A/CG	1.0	%	95.3	96.8	95.4	94.7	96.0

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

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

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					4-006	4-010	4-011	4-012	4-013
			Client samp	ling date / time	12-Sep-2024 10:35	12-Sep-2024 10:30	12-Sep-2024 11:00	12-Sep-2024 11:45	12-Sep-2024 12:50
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401501-006	YL2401501-007	YL2401501-008	YL2401501-009	YL2401501-010
					Result	Result	Result	Result	Result
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	167	41.5	42.0	42.3	41.5
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	2.8	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	1.4	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	170	41.5	42.0	42.3	41.5
Conductivity		E100/VA	2.0	μS/cm	578	105	101	103	100
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	287	42.8	44.1	45.5	43.3
pH		E108/VA	0.10	pH units	8.31	7.80	7.84	7.86	7.86
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	401	66.8	69.2	68.5	63.5
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	306	43.4	43.1	44.4	44.5
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0064	<0.0050	<0.0050	0.0066	<0.0050
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	0.88	1.40	1.39	1.42	1.40
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	4.74	<0.0050	<0.0050	<0.0050	<0.0050
		A							
Nitrate (as NO3)	14797-55-8	EC235.NO3A/	0.010	mg/L	21.0	<0.022	<0.022	<0.022	<0.022
Nitrate + Nitrite (as N)		VA	0.0050	ma/l	4.74	<0.0051	<0.0051	<0.0051	<0.0051
Nitiate + Nititle (as N)		EC235.N+N/V Δ	0.0030	mg/L	4.74	\0.0031	~ 0.0031	\0.0031	~ 0.0031
Nitrite (as N)	14797-65-0	E235.NO2-L/V	0.0010	mg/L	0.0029	<0.0010	<0.0010	<0.0010	<0.0010
		A							
Nitrite (as NO2)	14797-65-0	EC235.NO2A/	0.0030	mg/L	0.0095	<0.0033	<0.0033	<0.0033	<0.0033
Discoulation of the Control of the Discoulation of the Control of		VA	0.0040		0.0420	-0.0040	10.0040	-0.0040	10.0040
Phosphate, ortho-, dissolved (as P)	14265-44-2		0.0010	mg/L	0.0132	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total		E372-U/VA	0.0020	mg/L	0.0228	0.0043	0.0053	0.0053	0.0047
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	122	7.84	7.67	8.11	7.59
Organic / Inorganic Carbon		5055 1 8 / 8	0.50		2.24	0.00	0.00	0.00	0.05
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	2.94	2.82	2.82	3.00	2.95
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0086	0.0106	0.0112	0.0131	0.0145

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)				4-006	4-010	4-011	4-012	4-013
		·	ling date / time	12-Sep-2024 10:35	12-Sep-2024 10:30	12-Sep-2024 11:00	12-Sep-2024 11:45	12-Sep-2024 12:50
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401501-006	YL2401501-007	YL2401501-008	YL2401501-009	YL2401501-010
Total Metals				Result	Result	Result	Result	Result
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	0.00534	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00462	0.00034	0.00035	0.00031	0.00038
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0243	0.00446	0.00432	0.00438	0.00445
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	0.0000199	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	98.6	12.2	12.5	12.8	12.0
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.00021	<0.00010	<0.00010	<0.00010	<0.00010
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00126	0.00054	0.00053	0.00054	0.00056
Iron, total	7439-89-6 E420/VA	0.010	mg/L	0.025	<0.010	<0.010	0.014	0.013
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0019	0.0021	0.0021	0.0022	0.0022
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	9.93	2.99	3.14	3.28	3.24
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.0121	0.00229	0.00303	0.00464	0.00302
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.00705	0.000096	0.000091	0.000103	0.000088
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.00254	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.62	1.45	1.47	1.47	1.50
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00132	0.00202	0.00222	0.00210	0.00218
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.00194	<0.000050	<0.000050	<0.000050	<0.000050
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	5.00	0.15	0.16	0.16	0.17
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	3.89	2.39	2.48	2.46	2.42
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.341	0.0480	0.0451	0.0476	0.0461
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	41.3	2.58	2.41	2.77	2.54
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project

Sub-Matrix: Water			Cli	ent sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					4-006	4-010	4-011	4-012	4-013
			·	ling date / time	12-Sep-2024 10:35	12-Sep-2024 10:30	12-Sep-2024 11:00	12-Sep-2024 11:45	12-Sep-2024 12:50
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401501-006	YL2401501-007	YL2401501-008	YL2401501-009	YL2401501-010
					Result	Result	Result	Result	Result
Total Metals Thallium, total	7440-28-0	F420/\/A	0.000010	mg/L	<0.000010	<0.000010	<0.00010	<0.000010	<0.000010
Thorium, total	7440-29-1		0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-29-1		0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-31-5 7440-32-6		0.00010	mg/L	<0.00030	<0.00070	0.00039	0.00041	0.00045
Tungsten, total	7440-32-0		0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00011	<0.00010
Uranium, total	7440-61-1		0.000010	mg/L	0.00289	0.000108	0.000108	0.000111	0.000104
Vanadium, total	7440-61-1		0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6		0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7		0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	7440-07-7		0.00020	mg/ E	0.00020	0.00020	0.00020	0.00020	0.00020
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	106	12.5	12.4	12.8	12.8
Magnesium, dissolved	7439-95-4		0.0050	mg/L	9.97	2.96	2.94	3.02	3.05
Potassium, dissolved	7440-09-7		0.050	mg/L	1.58	1.46	1.44	1.46	1.48
Sodium, dissolved	7440-23-5		0.050	mg/L	3.50	2.32	2.32	2.43	2.45
Dissolved metals filtration location		EP421/VA	-	-	Field	Field	Field	Field	Field
Volatile Organic Compounds [BTEXS+MTBE]									
Benzene	71-43-2	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	108-88-3	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene, o-	95-47-6	E611A/CG	0.50	μg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes, total	1330-20-7	E611A/CG	0.75	μg/L	<0.75	<0.75	<0.75	<0.75	<0.75
BTEX, total		E611A/CG	1.2	μg/L	<1.2	<1.2	<1.2	<1.2	<1.2
Hydrocarbons									
F1 (C6-C10)		E581.F1/CG	100	μg/L	<100	<100	<100	<100	<100
F1-BTEX		EC580/CG	100	μg/L	<100	<100	<100	<100	<100
F2 (C10-C16)		E601/CG	100	μg/L	<100	<100	<100	<100	<100
F3 (C16-C34)		E601/CG	250	μg/L	<250	<250	<250	<250	<250
F4 (C34-C50)		E601/CG	250	μg/L	<250	<250	<250	<250	<250
Hydrocarbons, total (C6-C50)	n/a	EC581/CG	400	μg/L	<400	<400	<400	<400	<400
1			•	'					

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			Cli	ient sample ID	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000	GLG-2024-0000
(Matrix: Water)					4-006	4-010	4-011	4-012	4-013
			Client samp	ling date / time	12-Sep-2024 10:35	12-Sep-2024 10:30	12-Sep-2024 11:00	12-Sep-2024 11:45	12-Sep-2024 12:50
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401501-006	YL2401501-007	YL2401501-008	YL2401501-009	YL2401501-010
					Result	Result	Result	Result	Result
Hydrocarbons Surrogates									
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E	601/CG	1.0	%	84.4	89.8	89.8	85.3	88.4
Dichlorotoluene, 3,4-	95-75-0 E	581.F1/CG	1.0	%	107	108	114	115	113
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4 E	611A/CG	1.0	%	78.4	81.3	86.3	81.3	83.7
Difluorobenzene, 1,4-	540-36-3 E	611A/CG	1.0	%	94.0	96.0	97.5	95.5	94.8

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

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

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water			CI	ient sample ID	GLG-2024-0000	 	
(Matrix: Water)					4-019		
			Client samp	ling date / time	12-Sep-2024 10:35	 	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401501-011	 	
					Result	 	
Physical Tests							
Alkalinity, bicarbonate (as CaCO3)		E290/VA	1.0	mg/L	169	 	
Alkalinity, carbonate (as CaCO3)		E290/VA	1.0	mg/L	4.0	 	
Alkalinity, hydroxide (as CaCO3)		E290/VA	1.0	mg/L	<1.0	 	
Alkalinity, phenolphthalein (as CaCO3)		E290/VA	1.0	mg/L	2.0	 	
Alkalinity, total (as CaCO3)		E290/VA	1.0	mg/L	173	 	
Conductivity		E100/VA	2.0	μS/cm	564	 	
Hardness (as CaCO3), from total Ca/Mg		EC100A/VA	0.60	mg/L	298	 	
рН		E108/VA	0.10	pH units	8.35	 	
Solids, total dissolved [TDS]		E162-L/VA	3.0	mg/L	416	 	
Solids, total suspended [TSS]		E160-L/VA	1.0	mg/L	<1.0	 	
Hardness (as CaCO3), dissolved		EC100/VA	0.50	mg/L	289	 	
Anions and Nutrients							
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0054	 	
Chloride	16887-00-6	E235.CI/VA	0.50	mg/L	0.88	 	
Nitrate (as N)	14797-55-8	E235.NO3-L/V	0.0050	mg/L	4.74	 	
Nitrate (as NO3)	14797-55-8	A EC235.NO3A/ VA	0.010	mg/L	21.0	 	
Nitrate + Nitrite (as N)		EC235.N+N/V A	0.0050	mg/L	4.74	 	
Nitrite (as N)	14797-65-0	E235.NO2-L/V Δ	0.0010	mg/L	0.0022	 	
Nitrite (as NO2)	14797-65-0	EC235.NO2A/ VA	0.0030	mg/L	0.0072	 	
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	0.0134	 	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0225	 	
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	118	 	
Organic / Inorganic Carbon							
Carbon, total organic [TOC]		E355-L/VA	0.50	mg/L	2.84	 	
Total Metals							
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0097	 	

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Analytical Nesults							
Sub-Matrix: Water		CI	ient sample ID	GLG-2024-0000		 	
(Matrix: Water)				4-019			
		Client samp	ling date / time	12-Sep-2024 10:35		 	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401501-011		 	
				Result		 	
Total Metals							
Antimony, total	7440-36-0 E420/VA	0.00010	mg/L	0.00534		 	
Arsenic, total	7440-38-2 E420/VA	0.00010	mg/L	0.00455		 	
Barium, total	7440-39-3 E420/VA	0.00010	mg/L	0.0245		 	
Beryllium, total	7440-41-7 E420/VA	0.000100	mg/L	<0.000100		 	
Bismuth, total	7440-69-9 E420/VA	0.000050	mg/L	<0.000050		 	
Boron, total	7440-42-8 E420/VA	0.010	mg/L	<0.010		 	
Cadmium, total	7440-43-9 E420/VA	0.0000050	mg/L	0.0000196		 	
Calcium, total	7440-70-2 E420/VA	0.050	mg/L	103		 	
Cesium, total	7440-46-2 E420/VA	0.000010	mg/L	<0.000010		 	
Chromium, total	7440-47-3 E420/VA	0.00050	mg/L	<0.00050		 	
Cobalt, total	7440-48-4 E420/VA	0.00010	mg/L	0.00024		 	
Copper, total	7440-50-8 E420/VA	0.00050	mg/L	0.00131		 	
Iron, total	7439-89-6 E420/VA	0.010	mg/L	0.028		 	
Lead, total	7439-92-1 E420/VA	0.000050	mg/L	0.000053		 	
Lithium, total	7439-93-2 E420/VA	0.0010	mg/L	0.0020		 	
Magnesium, total	7439-95-4 E420/VA	0.0050	mg/L	10.0		 	
Manganese, total	7439-96-5 E420/VA	0.00010	mg/L	0.0131		 	
Mercury, total	7439-97-6 E508/VA	0.0000050	mg/L	<0.0000050		 	
Molybdenum, total	7439-98-7 E420/VA	0.000050	mg/L	0.00695		 	
Nickel, total	7440-02-0 E420/VA	0.00050	mg/L	0.00260		 	
Phosphorus, total	7723-14-0 E420/VA	0.050	mg/L	0.051		 	
Potassium, total	7440-09-7 E420/VA	0.050	mg/L	1.62		 	
Rubidium, total	7440-17-7 E420/VA	0.00020	mg/L	0.00122		 	
Selenium, total	7782-49-2 E420/VA	0.000050	mg/L	0.00202		 	
Silicon, total	7440-21-3 E420/VA	0.10	mg/L	5.29		 	
Silver, total	7440-22-4 E420/VA	0.000010	mg/L	<0.000010		 	
Sodium, total	7440-23-5 E420/VA	0.050	mg/L	3.84		 	
Strontium, total	7440-24-6 E420/VA	0.00020	mg/L	0.341		 	
Sulfur, total	7704-34-9 E420/VA	0.50	mg/L	43.1		 	
Tellurium, total	13494-80-9 E420/VA	0.00020	mg/L	<0.00020		 	
1	1010100-0					I	l l

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Client

Stantec Consulting Ltd.
Gordon Lake - Phase 1 LTMP - Water Project



Sub-Matrix: Water		Cli	ient sample ID	GLG-2024-0000	 	
(Matrix: Water)				4-019		
		Client samp	ling date / time	12-Sep-2024 10:35	 	
Analyte	CAS Number Method/Lab	LOR	Unit	YL2401501-011	 	
				Result	 	
Total Metals						
Thallium, total	7440-28-0 E420/VA	0.000010	mg/L	<0.000010	 	
Thorium, total	7440-29-1 E420/VA	0.00010	mg/L	<0.00010	 	
Tin, total	7440-31-5 E420/VA	0.00010	mg/L	<0.00010	 	
Titanium, total	7440-32-6 E420/VA	0.00030	mg/L	<0.00030	 	
Tungsten, total	7440-33-7 E420/VA	0.00010	mg/L	<0.00010	 	
Uranium, total	7440-61-1 E420/VA	0.000010	mg/L	0.00293	 	
Vanadium, total	7440-62-2 E420/VA	0.00050	mg/L	<0.00050	 	
Zinc, total	7440-66-6 E420/VA	0.0030	mg/L	<0.0030	 	
Zirconium, total	7440-67-7 E420/VA	0.00020	mg/L	<0.00020	 	
Dissolved Metals						
Calcium, dissolved	7440-70-2 E421/VA	0.050	mg/L	99.7	 	
Magnesium, dissolved	7439-95-4 E421/VA	0.0050	mg/L	9.80	 	
Potassium, dissolved	7440-09-7 E421/VA	0.050	mg/L	1.56	 	
Sodium, dissolved	7440-23-5 E421/VA	0.050	mg/L	3.47	 	
Dissolved metals filtration location	EP421/VA	-	-	Field	 	
Volatile Organic Compounds [BTEXS+MTBE]						
Benzene	71-43-2 E611A/CG	0.50	μg/L	<0.50	 	
Ethylbenzene	100-41-4 E611A/CG	0.50	μg/L	<0.50	 	
Toluene	108-88-3 E611A/CG	0.50	μg/L	<0.50	 	
Xylene, m+p-	179601-23-1 E611A/CG	0.50	μg/L	<0.50	 	
Xylene, o-	95-47-6 E611A/CG	0.50	μg/L	<0.50	 	
Xylenes, total	1330-20-7 E611A/CG	0.75	μg/L	<0.75	 	
BTEX, total	E611A/CG	1.2	μg/L	<1.2	 	
Hydrocarbons						
F1 (C6-C10)	E581.F1/CG	100	μg/L	<100	 	
F1-BTEX	EC580/CG	100	μg/L	<100	 	
F2 (C10-C16)	E601/CG	100	μg/L	<100	 	
F3 (C16-C34)	E601/CG	250	μg/L	<250	 	
F4 (C34-C50)	E601/CG	250	μg/L	<250	 	
Hydrocarbons, total (C6-C50)	n/a EC581/CG	400	μg/L	<400	 	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Analytical Results

Sub-Matrix: Water			Cl	ient sample ID	GLG-2024-0000	 	
(Matrix: Water)					4-019		
			Client samp	ling date / time	12-Sep-2024 10:35	 	
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401501-011	 	
					Result	 	
Hydrocarbons Surrogates							
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6 E6	01/CG	1.0	%	87.9	 	
Dichlorotoluene, 3,4-	95-75-0 E5	81.F1/CG	1.0	%	116	 	
Volatile Organic Compounds Surrogates							
Bromofluorobenzene, 4-	460-00-4 E6	311A/CG	1.0	%	87.9	 	
Difluorobenzene, 1,4-	540-36-3 E6	311A/CG	1.0	%	95.0	 	

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

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



QUALITY CONTROL INTERPRETIVE REPORT

Work Order : YL2401501 Page : 1 of 31

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Contact : Natalie Normandeau Account Manager : Oliver Gregg

Address : 4910 53 Street Address : 314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

 Telephone
 :-- Telephone
 : 1 867 445 7143

 Project
 : Gordon Lake - Phase 1 LTMP - Water
 Date Samples Received
 : 13-Sep-2024 09:54

C-O-C number :---Sampler :---Site :----

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received :11
No. of samples analysed :11

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

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.

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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					Ev	raluation: × =	Holding time excee	edance ; •	= Within	Holding Tim
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pre	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-005	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-006	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-010	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-011	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-012	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-013	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-019	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: water	1					diddion. • =	Tolding time exce			Tiolding Tilli
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	•			Analys	sis	
Container / Client Sample ID(s)			Preparation		g Times	Eval	Analysis Date		g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-001	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-002	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
323 232 1 3333 1 332				days	J, -		''		, -	
				days						
Anions and Nutrients : Ammonia by Fluorescence				T T	<u> </u>			I		
Amber glass total (sulfuric acid)	E298	10 Con 2004	17 Can 2004		E dove	✓	10 Con 2024	20 day:-	7 days	√
GLG-2024-00004-003	E298	12-Sep-2024	17-Sep-2024	28	5 days	•	19-Sep-2024	28 days	7 days	•
				days						
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
GLG-2024-00004-004	E298	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC							•	1		
HDPE										
GLG-2024-00004-001	E235.CI	12-Sep-2024	17-Sep-2024	28	5 days	1	17-Sep-2024	28 days	5 days	✓
		· ·	·	days						
Aniana and Nutrianta - Chlavida in Water by IC				,						
Anions and Nutrients : Chloride in Water by IC HDPE				I				I		
GLG-2024-00004-002	E235.CI	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	1
GLG-2024-00004-002	L233.01	12-0cp-2024	17-3ep-2024		3 days	•	17-3ep-2024	20 days	Juays	*
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00004-003	E235.CI	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC									·	
HDPE										
GLG-2024-00004-004	E235.CI	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	✓
				days						
Anions and Nutrients : Chloride in Water by IC										
HDPE										
GLG-2024-00004-006	E235.CI	12-Sep-2024	17-Sep-2024	20	5 days	✓	17-Sep-2024	28 days	5 days	✓
GLG-2024-00004-000	L200.01	12-06p-2024	17-36p-2024	28	Juays	•	17-36p-2024	20 uays	Juays	•
				days						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Method Consister Standylical Method Consister Filler Sampling Dig Consister Filler Sample Dig Telephanton Pepaparation Pepapara	Matrix: Water					Εν	valuation: ≭ =	Holding time exce	edance ; 🔻	= Within	Holding Time
Anions and Nutrients : Chloride in Water by IC E235.Cl 12-Sep-2024 17-Sep-2024 28 days 5 d	Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	eparation			Analys	is	
Anions and Nutrients : Chloride in Water by IC	Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
Family F				Date	Rec	Actual			Rec	Actual	
Calification Cali											
Anions and Nutrients - Chloride in Water by IC E235.Cl 12-Sep-2024 17-Sep-2024 28 5 days 4 17-Sep-2024 28 5 days 4 17-Sep-2024 28 5 days 4 17-Sep-2024 28 28 5 days 4 28 28 5 days 4 28 28 28 28 28 28 28		E005 OI	10.0	47.0				47.0 0004	00.1		,
Anions and Nutrients : Chloride in Water by IC	GLG-2024-00004-010	E235.CI	12-Sep-2024	17-Sep-2024		5 days	√	17-Sep-2024	28 days	5 days	√
Mode Separate Mode Mod					days						
ClG-2024-00004-011 E235.Cl 12-Sep-2024 17-Sep-2024 28 days 5 days 7 days 17-Sep-2024 28 days 5 days 7 days					1						
Anions and Nutrients : Chloride in Water by IC HDPE GLG-2024-00004-012 Anions and Nutrients : Chloride in Water by IC HDPE GLG-2024-00004-013 E235.Cl 12-Sep-2024 17-Sep-2024 28 b days 5 days 4 17-Sep-2024 28 days 5 days 5 days 4 17-Sep-2024 28 days 5 days 5 days 5 days 4 17-Sep-2024 28 days 5 days		F235 CI	12-Sen-2024	17-Sen-2024	20	5 days	1	17-Sen-2024	28 days	5 days	1
Anions and Nutrients : Chloride in Water by IC HDPE GLG-2024-00004-012 E235.Cl 12-Sep-2024 17-Sep-2024 28 days 5 days 4 days 5 days	GLG-2024-00004-011	L233.01	12-0ep-2024	17-0cp-202 4		5 days	·	17-0ep-2024	20 days	5 days	•
HOPE GLG-2024-00004-012 PE35.CI PE35.C	Asiana and Nationas - Oblavida in Water by 10				uays						
State								I			
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 1.001 mg/L) Anions		E235.CI	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	✓
HDPE Cl.G-2024-00004-013 E235.Cl E235.Cl 12-Sep-2024 17-Sep-2024 28 alys 5 days 7 days 17-Sep-2024 28 days 5 days 7 days 5 days 7 days 5 days 7 days											
HDPE Cl.G-2024-00004-013 E235.Cl E235.Cl 12-Sep-2024 17-Sep-2024 28 alys 5 days 7 days 17-Sep-2024 28 days 5 days 7 days 5 days 7 days 5 days 7 days	Anions and Nutrients : Chloride in Water by IC										
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) Anions											
Anions and Nutrients : Chloride in Water by IC HDPE GLG-2024-00004-019 E235.Cl	GLG-2024-00004-013	E235.CI	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	✓
HDPE GLG-2024-00004-019 E235.Cl 12-Sep-2024 17-Sep-2024 28 days 5 days 17-Sep-2024 28 days 5 days 5 days 17-Sep-2024 28 days 5 days 17-Sep-2024 28 days 5 days 17-Sep-2024 17-					days						
ClG-2024-00004-019 ClG-2024-00004-019 ClG-2024-00004-019 ClG-2024-00004-019 ClG-2024-00004-019 ClG-2024-00004-001 ClG-2024-00004-001 ClG-2024-00004-001 ClG-2024-00004-001 ClG-2024-00004-001 ClG-2024-00004-001 ClG-2024-00004-001 ClG-2024-00004-001 ClG-2024-00004-002 ClG-2024-00004-003 ClG-202	Anions and Nutrients : Chloride in Water by IC										
Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE GLG-2024-00004-001 E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	HDPE										
Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE GLG-2024-00004-001 E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	GLG-2024-00004-019	E235.CI	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	✓
HDPE GLG-2024-00004-001 12-Sep-2024 17-Sep-2024 3 days 5 days x EHT 18-Sep-2024 3 days 6 days x EHT					days						
Signature Figure		vel 0.001 mg/L)									
Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE GLG-2024-00004-002 E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)		E070 II	10.0	47.0				40.0 0004			
Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE GLG-2024-00004-002 E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	GLG-2024-00004-001	E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days		18-Sep-2024	3 days	6 days	·
HDPE GLG-2024-00004-002 E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days HDPE GLG-2024-00004-002 Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE GLG-2024-00004-003 E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days HDPE GLG-2024-00004-003 E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days HDPE HT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE HDPE HDPE HDPE HDPE HDPE HDPE HDP							ЕПІ				ЕПІ
GLG-2024-00004-002 E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days # EHT 18-Sep-2024 3 days 6 days # EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) # HDPE GLG-2024-00004-003 E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days # EHT 18-Sep-2024 3 days 6 days # EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)		vel 0.001 mg/L)									
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE GLG-2024-00004-003 E378-U 12-Sep-2024 17-Sep-2024 17-Sep-2024 3 days 5 days * EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	1	F378-II	12-Sen-2024	17-Sep-2024	3 days	5 days	<u>y</u>	18-Sen-2024	3 days	6 days	*
Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) HDPE GLG-2024-00004-003 E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days * EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	GLG-2024-00004-002	2370-0	12-0ep-2024	17-0ep-202 4	Juays	5 days		10-0ер-2024	Juays	0 days	**
HDPE GLG-2024-00004-003 E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	Anions and Nutriants - Discolved Orthonhoophata by Colourimetry (Utra Trace L	wol 0 001-mg/L)									
GLG-2024-00004-003 E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days EHT 18-Sep-2024 3 days 6 days EHT Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)		Mer 0.00 Fing/L)									
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)		E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days	*	18-Sep-2024	3 days	6 days	*
			·	•		,	EHT	i i			EHT
	Anions and Nutrients: Dissolved Orthophosphate by Colourimetry (Ultra Trace Le	vel 0.001 mg/L)									
GLG-2024-00004-004 E378-U 12-Sep-2024 17-Sep-2024 3 days 5 days * 18-Sep-2024 3 days 6 days *	GLG-2024-00004-004	E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days	3 2	18-Sep-2024	3 days	6 days	32
EHT EHT							EHT				EHT

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water					E۱	/aluation: 🗴 =	Holding time exce	edance ; 🔹	= Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	Level 0.001 mg/L)									
HDPE										
GLG-2024-00004-006	E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days	*	18-Sep-2024	3 days	6 days	*
						EHT				EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE GLG-2024-00004-010	E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days	×	18-Sep-2024	3 days	6 days	×
GLG-2024-00004-010	L376-0	12-3ep-2024	17-3ep-2024	3 days	Juays	EHT	10-3ер-2024	3 days	0 days	EHT
	10001 113									E111
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L HDPE	Lever 0.001 mg/L)						I			
GLG-2024-00004-011	E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days	3c	18-Sep-2024	3 days	6 days	×
020 202 1 0000 1 0 1 1				,-	,-	EHT		, -	,-	EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace I	ovel 0.001 mg/l)									
HDPE	ever 0.001 mg/L)						I			
GLG-2024-00004-012	E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days	×	18-Sep-2024	3 days	6 days	×
			-			EHT				EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE										
GLG-2024-00004-013	E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days	×	18-Sep-2024	3 days	6 days	*
						EHT				EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace L	evel 0.001 mg/L)									
HDPE										
GLG-2024-00004-019	E378-U	12-Sep-2024	17-Sep-2024	3 days	5 days	*	18-Sep-2024	3 days	6 days	*
						EHT				EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE	F225 N/O2 I	12 50= 2004	17 80- 0004	2 4	E dave	×	17 00- 0004	2 4	E deve	×
GLG-2024-00004-001	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	EHT	17-Sep-2024	3 days	5 days	EHT
						ЕПІ				ENI
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00004-002	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	×	17-Sep-2024	3 days	5 days	*
010 2024 00004 002	2200.1100 2	12 dop 2021	17 GGP 2021	o dayo	o dayo	EHT	17 000 2021	o dayo	o dayo	EHT
Anione and Nutriante - Nitrata in Water by IC (Levy Level)										
Anions and Nutrients : Nitrate in Water by IC (Low Level) HDPE										
GLG-2024-00004-003	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	×	17-Sep-2024	3 days	5 days	*
			,			EHT	<u>'</u>		1	EHT

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Client



Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00004-004	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00004-006	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00004-010	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	x EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00004-011	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00004-012	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	≭ EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00004-013	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GLG-2024-00004-019	E235.NO3-L	12-Sep-2024	17-Sep-2024	3 days	5 days	± EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-001	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-002	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	≭ EHT

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water	Mathad	Committee Date	Ev	traction / Dr		valuation. •• =	Holding time exce	Analys		Tiolding Time
Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date		traction / Pr		Firel	Amakia Data			Final
Container / Client Sample ID(s)			Preparation Date	Rec	g Times Actual	Eval	Analysis Date	Rec	7 Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-003	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-004	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	x EHT	17-Sep-2024	3 days	5 days	# EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-006	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-010	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-011	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-012	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-013	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	* EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GLG-2024-00004-019	E235.NO2-L	12-Sep-2024	17-Sep-2024	3 days	5 days	* EHT	17-Sep-2024	3 days	5 days	x EHT
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-001	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water Evaluation: x = Hole

Matrix: Water					Εν	raluation: ≭ =	Holding time excee	edance ; •	= Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date		g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-002	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-003	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-004	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-006	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-010	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC				_						
HDPE GLG-2024-00004-011	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-012	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-013	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GLG-2024-00004-019	E235.SO4	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water

Evaluation: x = Holding time exceedance: \checkmark = Within Holding Time

Matrix: Water					E۱	/aluation: 🗴 =	Holding time exce	edance ; 🕦	/ = Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00004-001	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00004-002	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										,
GLG-2024-00004-005	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)	E070 II	40.0 0004	47.0				40.0 0004	00.1		
GLG-2024-00004-013	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	6 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GLG-2024-00004-003	E372-U	12-Sep-2024	17-Sep-2024	00	5 days	✓	19-Sep-2024	28 days	7 days	√
GLG-2024-00004-003	E372-U	12-3ep-2024	17-3ep-2024	28 days	5 uays	•	19-3ep-2024	20 days	7 uays	•
				uays						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)				l l			I			
Amber glass total (sulfuric acid) GLG-2024-00004-004	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	√	19-Sep-2024	28 days	7 days	√
GLG-2024-00004-004	2072-0	12-00p-2024	17-0cp-2024	days	Juays	·	19-0ep-2024	20 days	1 days	•
A translation of Table 1 and A translation (A constant)				uays						
Anions and Nutrients: Total Phosphorus by Colourimetry (0.002 mg/L)	l									
Amber glass total (sulfuric acid) GLG-2024-00004-006	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
GEG 2024 00004 000	2072 0	12 000 2021	17 GGP 2021	days	o dayo	·	10 000 2021	20 dayo	, dayo	·
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)							I			
GLG-2024-00004-010	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	1	19-Sep-2024	28 days	7 days	✓
323 232 1 3333 1 3 1 3				days	,-				, -	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)	1 1 1 1 1 1 1			,-						
Amber glass total (sulfuric acid)							I			
GLG-2024-00004-011	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
		, .=.		days	,-				, 5	
	<u> </u>						<u> </u>			

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water					E۱	/aluation: × =	Holding time exce	edance ; •	= VVithin	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00004-012	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
				days						
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GLG-2024-00004-019	E372-U	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
				days						
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GLG-2024-00004-001	E421	12-Sep-2024	20-Sep-2024	180	8 days	✓	23-Sep-2024	180	11 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GLG-2024-00004-002	E421	12-Sep-2024	20-Sep-2024	180	8 days	✓	23-Sep-2024	180	11 days	✓
				days			·	days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GLG-2024-00004-003	E421	12-Sep-2024	20-Sep-2024	180	8 days	✓	23-Sep-2024	180	11 days	✓
				days			·	days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS				-						
HDPE dissolved (nitric acid)										
GLG-2024-00004-004	E421	12-Sep-2024	20-Sep-2024	180	8 days	1	23-Sep-2024	180	11 days	✓
			·	days			i i	days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS				,				,		
HDPE dissolved (nitric acid)								T		
GLG-2024-00004-006	E421	12-Sep-2024	20-Sep-2024	180	8 days	✓	23-Sep-2024	180	11 days	✓
		, ,		days				days		
Dissalved Matela - Dissalved Matela in Water by CDC ICDMC										
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS HDPE dissolved (nitric acid)										
GLG-2024-00004-010	E421	12-Sep-2024	20-Sep-2024	180	8 days	√	23-Sep-2024	180	11 days	√
323 2021 00001 010		.2 33p 232 .	20 000 202 .	days	o days	·	20 000 202 .	days		
Discolard Mattle - Discolard Mattle in Water In SPR 1974				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS HDPE dissolved (nitric acid)							I			
GLG-2024-00004-011	E421	12-Sep-2024	20-Sep-2024	180	8 days	✓	23-Sep-2024	180	11 days	✓
GLG-2024-00004-011	L-72 I	12-00p-2024	20-06p-2024		o days	,	20-06p-2024	days	iiuays	•
				days				uays		

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										Holding I im
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GLG-2024-00004-012	E421	12-Sep-2024	20-Sep-2024	180	8 days	✓	23-Sep-2024	180	11 days	✓
				days				days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GLG-2024-00004-013	E421	12-Sep-2024	20-Sep-2024	180	8 days	✓	23-Sep-2024	180	11 days	✓
			•	days	-			days		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)	1			<u> </u>			<u> </u>			
GLG-2024-00004-019	E421	12-Sep-2024	20-Sep-2024	180	8 days	✓	23-Sep-2024	180	11 days	✓
			,	days	,		· ·	days		
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID				,-						
Glass vial (sodium bisulfate)				<u> </u>						
GLG-2024-00004-001	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
GLG-2024-00004-001	2001.11	12 dop 2021	10-00p-2024	days	r days		10-00p-2024	14 days	r days	•
				uays						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID				Г			1	<u> </u>		
Glass vial (sodium bisulfate)	E581.F1	10 Can 2024	10 Can 2024		7 daya	✓	10 Con 2024	14 days	7 days	√
GLG-2024-00004-002	E301.F1	12-Sep-2024	19-Sep-2024	14	7 days	•	19-Sep-2024	14 days	7 days	•
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)						,				,
GLG-2024-00004-003	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-004	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-006	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)				T						
GLG-2024-00004-010	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓

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Matrix: Water		/aluation: × =	on: × = Holding time exceedance ; ✓ = Within Holding T							
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-011	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-012	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)		1								
GLG-2024-00004-013	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
GLG-2024-00004-019	E581.F1	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-001	E601	12-Sep-2024	19-Sep-2024	14	7 days	✓	20-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-002	E601	12-Sep-2024	19-Sep-2024	14	7 days	✓	20-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-003	E601	12-Sep-2024	19-Sep-2024	14	7 days	✓	20-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-004	E601	12-Sep-2024	19-Sep-2024	14	7 days	✓	20-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-006	E601	12-Sep-2024	19-Sep-2024	14	7 days	✓	20-Sep-2024	40 days	1 days	✓
		· '	, , ,	days	′				,	
				,5						

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Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water					L\	raiuation. * =	* = Holding time exceedance; ✓ = Within Holding I			
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-010	E601	12-Sep-2024	19-Sep-2024	14	7 days	✓	20-Sep-2024	40 days	1 days	✓
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-011	E601	12-Sep-2024	19-Sep-2024	14	7 days	✓	20-Sep-2024	40 days	1 days	✓
		· ·	·	days	,		·			
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)							<u> </u>			
GLG-2024-00004-012	E601	12-Sep-2024	19-Sep-2024	14	7 days	1	20-Sep-2024	40 days	1 days	✓
010 2021 00001 012		.2 oop 202 .	.0 000 202.	days	. aayo	·	20 000 202 .		. aays	
				days						
Hydrocarbons: CCME PHCs - F2-F4 by GC-FID							I			
Amber glass/Teflon lined cap (sodium bisulfate)	E601	12-Sep-2024	10 Can 2024		7 days	✓	20 Con 2024	40 days	1 daya	✓
GLG-2024-00004-013	E001	12-Sep-2024	19-Sep-2024	14	7 days	•	20-Sep-2024	40 days	1 days	•
				days						
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
GLG-2024-00004-019	E601	12-Sep-2024	19-Sep-2024	14	7 days	✓	20-Sep-2024	40 days	1 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combusti	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00004-001	E355-L	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combusti	on (Low Level)									
Amber glass total (sulfuric acid)										
GLG-2024-00004-002	E355-L	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	✓
				days						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combusti	on (Low Level)									
Amber glass total (sulfuric acid)	on (EOW Eevel)						I			
GLG-2024-00004-003	E355-L	12-Sep-2024	17-Sep-2024	28	5 days	√	17-Sep-2024	28 days	5 days	√
323 2321 00001 000		55p 2024	55p 202 T	days	2 22,0		55p 2024		0 44,0	*
				uays						
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combusti	on (Low Level)									
Amber glass total (sulfuric acid)	F255 I	40.0 0004	47.0 000.1		5.1	,	47.0 0004	00.1	5.1	,
GLG-2024-00004-004	E355-L	12-Sep-2024	17-Sep-2024	28	5 days	✓	17-Sep-2024	28 days	5 days	✓
				days						

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Client



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

Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	eparation		Analysis			
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00004-005	E355-L	12-Sep-2024	17-Sep-2024	28 days	5 days	√	17-Sep-2024	28 days	5 days	√
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00004-006	E355-L	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00004-010	E355-L	12-Sep-2024	17-Sep-2024	28 days	5 days	1	17-Sep-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00004-011	E355-L	12-Sep-2024	17-Sep-2024	28 days	5 days	1	17-Sep-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00004-012	E355-L	12-Sep-2024	17-Sep-2024	28 days	5 days	1	17-Sep-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00004-013	E355-L	12-Sep-2024	17-Sep-2024	28 days	5 days	√	17-Sep-2024	28 days	5 days	√
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustic	n (Low Level)									
Amber glass total (sulfuric acid) GLG-2024-00004-019	E355-L	12-Sep-2024	17-Sep-2024	28 days	5 days	1	17-Sep-2024	28 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00004-001	E290	12-Sep-2024	17-Sep-2024	14 days	5 days	1	18-Sep-2024	14 days	6 days	√
Physical Tests : Alkalinity Species by Titration										
HDPE GLG-2024-00004-002	E290	12-Sep-2024	17-Sep-2024	14 days	5 days	✓	18-Sep-2024	14 days	6 days	✓

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Matrix: Water

Evaluation: **x** = Holding time exceedance : ✓ = Within Holding Time

Matrix: Water			araaro	on: × = Holding time exceedance ; ✓ = Within Holding T						
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00004-003	E290	12-Sep-2024	17-Sep-2024	14	5 days	✓	18-Sep-2024	14 days	6 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00004-004	E290	12-Sep-2024	17-Sep-2024	14	5 days	✓	18-Sep-2024	14 days	6 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00004-006	E290	12-Sep-2024	17-Sep-2024	14	5 days	✓	18-Sep-2024	14 days	6 days	✓
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE										
GLG-2024-00004-010	E290	12-Sep-2024	17-Sep-2024	14	5 days	✓	18-Sep-2024	14 days	6 days	✓
		·	,	days			'	,	1	
Physical Tests : Alkalinity Species by Titration				,						
HDPE				T			I			
GLG-2024-00004-011	E290	12-Sep-2024	17-Sep-2024	14	5 days	✓	19-Sep-2024	14 days	7 davs	✓
		' '	,	days			, ,		,	
Dhysical Tasta - Alkelinity Cussias by Titustian				uayo						
Physical Tests : Alkalinity Species by Titration HDPE				I						
GLG-2024-00004-012	E290	12-Sep-2024	17-Sep-2024	14	5 days	√	19-Sep-2024	14 days	7 days	✓
323 2024 00004 012		12 day 202 .	17 COP 2021	days	o dayo		10 000 2021	11 days	, dayo	
Photo LT of All II to Constant There				days						
Physical Tests : Alkalinity Species by Titration HDPE										
GLG-2024-00004-013	E290	12-Sep-2024	17-Sep-2024	14	5 days	√	19-Sep-2024	14 days	7 days	✓
GLG-2024-00004-013	L290	12-3ep-2024	17-3ep-2024		Juays	•	19-3ep-2024	14 days	1 days	•
				days						
Physical Tests : Alkalinity Species by Titration										
HDPE	F200	40.0 0004	47.0 2004			√	40.0 2004	44 -	7 -1	✓
GLG-2024-00004-019	E290	12-Sep-2024	17-Sep-2024	14	5 days	•	19-Sep-2024	14 days	7 days	▼
				days	_					
Physical Tests : Conductivity in Water										
HDPE										_
GLG-2024-00004-001	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						

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Matrix: Water							: × = Holding time exceedance ; ✓ = Within Holding I			
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pi	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00004-002	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00004-003	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Physical Tests : Conductivity in Water				_						
HDPE										
GLG-2024-00004-004	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00004-006	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00004-010	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	18-Sep-2024	28 days	6 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00004-011	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water										
HDPE										
GLG-2024-00004-012	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water				<u> </u>						
HDPE										
GLG-2024-00004-013	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓
				days						
Physical Tests : Conductivity in Water								1		
HDPE							I			
							1	1	1	
GLG-2024-00004-019	E100	12-Sep-2024	17-Sep-2024	28	5 days	✓	19-Sep-2024	28 days	7 days	✓

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Matrix: Water Analyte Group : Analytical Method	Method	Sampling Date	Fx	traction / P		valuation. • -	riolding time excel	∴ × = Holding time exceedance; ✓ = Within Analysis				
Container / Client Sample ID(s)	Wethod	Sampling Date	Preparation		ding Times Eval		Analysis Date		g Times	Eval		
			Date	Rec	Actual	Lvar	Analysis Date	Rec	Actual	Lvai		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-002	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	125 hrs	* EHTR-FM	18-Sep-2024	0.25 hrs	143 hrs	* EHTR-FM		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-001	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	126 hrs	* EHTR-FM	18-Sep-2024	0.25 hrs	143 hrs	# EHTR-FM		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-003	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	127 hrs	* EHTR-FM	18-Sep-2024	0.25 hrs	144 hrs	* EHTR-FM		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-004	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	127 hrs	* EHTR-FM	18-Sep-2024	0.25 hrs	145 hrs	* EHTR-FM		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-006	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	128 hrs	# EHTR-FM	18-Sep-2024	0.25 hrs	146 hrs	x EHTR-FM		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-010	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	128 hrs	* EHTR-FM	18-Sep-2024	0.25 hrs	146 hrs	≭ EHTR-FM		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-013	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	128 hrs	* EHTR-FM	19-Sep-2024	0.25 hrs	165 hrs	# EHTR-FM		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-012	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	129 hrs	* EHTR-FM	19-Sep-2024	0.25 hrs	166 hrs	* EHTR-FM		
Physical Tests : pH by Meter												
HDPE GLG-2024-00004-011	E108	12-Sep-2024	17-Sep-2024	0.25 hrs	129 hrs	* EHTR-FM	19-Sep-2024	0.25 hrs	167 hrs	* EHTR-FM		

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Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water					E	/aluation. 🚣 –	n: × = Holding time exceedance ; ✓ = Within Holding			
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / P	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Analysis Date Holding Times		Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter										
HDPE										
GLG-2024-00004-019	E108	12-Sep-2024	17-Sep-2024	0.25	130 hrs	3 0	19-Sep-2024	0.25	167 hrs	se
				hrs		EHTR-FM		hrs		EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-001	E162-L	12-Sep-2024					19-Sep-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-002	E162-L	12-Sep-2024					19-Sep-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-003	E162-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)									1	
HDPE										
GLG-2024-00004-004	E162-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-006	E162-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)									•	
HDPE										
GLG-2024-00004-010	E162-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-011	E162-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-012	E162-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water					E	/aluation. 🔻 –	n: × = Holding time exceedance ; ✓ = Within Holding			
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-013	E162-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
		·								
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
GLG-2024-00004-019	E162-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
323 232 1 0000 1 0 10		.2 35p 202 .					10 000 202	,	. aays	
Physical Tests (TOO by Considerator (Lovel Lovel)										
Physical Tests : TSS by Gravimetry (Low Level) HDPE [TSS-WB]							<u> </u>			
GLG-2024-00004-001	E160-L	12-Sep-2024					19-Sep-2024	7 days	6 days	✓
323 232 1 0000 1 001		.2 oop 202 .						. aayo	o days	
Physical Texts (TOO by Construction (Inc. 1997))										
Physical Tests : TSS by Gravimetry (Low Level) HDPE [TSS-WB]										
GLG-2024-00004-002	E160-L	12-Sep-2024					19-Sep-2024	7 days	6 days	✓
GLG-2024-00004-002	L 100-L	12-06p-2024					19-3ep-2024	/ uays	0 days	•
Physical Tests : TSS by Gravimetry (Low Level)				I	I		<u> </u>			
HDPE [TSS-WB] GLG-2024-00004-003	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
GLG-2024-00004-003	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	•
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]	E400.1	40.0 0004								,
GLG-2024-00004-004	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)									, ,	
HDPE [TSS-WB]										
GLG-2024-00004-006	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00004-010	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00004-011	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water						raidation	n: × = Holding time exceedance ; ✓ = Within Holding			
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pi	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holdin	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00004-012	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
GLG-2024-00004-013	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)								1		
HDPE [TSS-WB]										
GLG-2024-00004-019	E160-L	12-Sep-2024					19-Sep-2024	7 days	7 days	✓
		·							-	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00004-001	E508	12-Sep-2024	20-Sep-2024	28	8 days	✓	20-Sep-2024	28 days	8 davs	✓
020 2021 00001 001		' '		days	0, -			, -	, -	
Total Metals : Total Mercury in Water by CVAAS				uayo						
Glass vial total (hydrochloric acid)							<u> </u>			
GLG-2024-00004-002	E508	12-Sep-2024	20-Sep-2024	28	8 days	✓	20-Sep-2024	28 days	8 days	✓
320 2021 00001 002		oop 202.	20 000 202.	days	o aayo		20 000 202 .	20 00,0	o aayo	
Tatal Matala - Tatal Manageria Matala bu CVAAC				dayo						
Total Metals : Total Mercury in Water by CVAAS Glass vial total (hydrochloric acid)							<u> </u>	I		
GLG-2024-00004-003	E508	12-Sep-2024	20-Sep-2024	28	8 days	√	20-Sep-2024	28 days	8 days	✓
GLG-2024-00004-003	2000	12-00p-2024	20-0ep-202 4	days	0 days	,	20-0ep-202 4	20 days	0 days	•
				uays						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GLG-2024-00004-004	E508	12-Sep-2024	20-Sep-2024	00	8 days	√	20-Sep-2024	28 days	8 days	✓
GLG-2024-00004-004	E300	12-Sep-2024	20-3ep-2024	28	o uays	•	20-Sep-2024	20 days	o uays	•
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)	F500	10.0 0001	00.0000.1		0.1		00.0 000.1	00.1	0.1	,
GLG-2024-00004-005	E508	12-Sep-2024	20-Sep-2024	28	8 days	✓	20-Sep-2024	28 days	8 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00004-006	E508	12-Sep-2024	20-Sep-2024	28	8 days	✓	20-Sep-2024	28 days	8 days	✓
				days						

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Client



Matrix: Water					Ev	raluation: ≭ = ∣	Holding time excee	edance ; •	✓ = Within	Holding Time
Analyte Group : Analytical Method	Method	Sampling Date	Ext	raction / Pr	eparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00004-010	E508	12-Sep-2024	20-Sep-2024	28 days	8 days	✓	20-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00004-011	E508	12-Sep-2024	20-Sep-2024	28	8 days	✓	20-Sep-2024	28 days	8 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00004-012	E508	12-Sep-2024	20-Sep-2024	28	8 days	✓	20-Sep-2024	28 days	8 days	✓
				days						
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00004-013	E508	12-Sep-2024	20-Sep-2024	28	8 days	✓	20-Sep-2024	28 days	8 days	1
			·	days			· ·	_		
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GLG-2024-00004-019	E508	12-Sep-2024	20-Sep-2024	28	8 days	✓	20-Sep-2024	28 days	8 days	✓
		' '		days	,		, ,			
Total Metals : Total Metals in Water by CRC ICPMS				,-						
HDPE total (nitric acid)							I			
GLG-2024-00004-001	E420	12-Sep-2024	19-Sep-2024	180	7 days	✓	20-Sep-2024	180	8 days	1
010 2024 00004 001	2.20	.2 336 232 .	10 COP 2021	days	, dayo	·	20 000 2021	days	o dayo	· ·
Total Madella - Total Madella in Water by CRC ICRMS				dayo				dayo		
Total Metals : Total Metals in Water by CRC ICPMS HDPE total (nitric acid)							I	<u> </u>		
GLG-2024-00004-002	E420	12-Sep-2024	19-Sep-2024	180	7 days	✓	20-Sep-2024	180	8 days	√
GLG-2024-00004-002	L+20	12-00p-2024	10-00p-202+	days	r days	·	20-00p-2024	days	0 days	,
				uays				uays		
Total Metals : Total Metals in Water by CRC ICPMS	I						I			
HDPE total (nitric acid) GLG-2024-00004-003	E420	12-Sep-2024	19-Sep-2024	400	7 days	1	20-Sep-2024	400	8 days	√
GLG-2024-00004-003	L420	12-3ep-2024	19-3ep-2024	180	1 days	•	20-3 6 p-2024	180	0 days	· ·
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)	E420	12 Con 2024	10 Cor 2004	465	7 de::-	1	20 50- 2004	400	0 da	✓
GLG-2024-00004-004	E42U	12-Sep-2024	19-Sep-2024	180	7 days	•	20-Sep-2024	180	8 days	*
				days				days		

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Matrix: Water			/aluation: × =	tion: × = Holding time exceedance ; ✓ = Within Holding Ti						
Analyte Group : Analytical Method	Method	Sampling Date	Ex	traction / Pr	reparation			Analys	sis	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	g Times	Eval
			Date	Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
GLG-2024-00004-005	E420	12-Sep-2024	19-Sep-2024	180	7 days	✓	20-Sep-2024	180	8 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS									1	
HDPE total (nitric acid)										
GLG-2024-00004-012	E420	12-Sep-2024	19-Sep-2024	180	7 days	✓	20-Sep-2024	180	8 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS									<u> </u>	
HDPE total (nitric acid)		1								
GLG-2024-00004-013	E420	12-Sep-2024	19-Sep-2024	180	7 days	✓	20-Sep-2024	180	8 days	✓
				days				days		
Total Metals : Total Metals in Water by CRC ICPMS									<u> </u>	
HDPE total (nitric acid)										
GLG-2024-00004-006	E420	12-Sep-2024	19-Sep-2024	180	7 days	1	20-Sep-2024	180	9 days	✓
			'	days	,		'	days	,	
Total Metals : Total Metals in Water by CRC ICPMS				,				,		
HDPE total (nitric acid)				<u> </u>						
GLG-2024-00004-010	E420	12-Sep-2024	19-Sep-2024	180	7 days	√	20-Sep-2024	180	9 days	✓
		,	'	days	,		'	days	,	
Total Metals : Total Metals in Water by CRC ICPMS				,				,		
HDPE total (nitric acid)										
GLG-2024-00004-011	E420	12-Sep-2024	19-Sep-2024	180	7 days	√	20-Sep-2024	180	9 days	✓
010 2011 00001 011		, ,		days	, -			days	,-	
Total Matala : Total Matala in Water by CRC ICRMS								, -		
Total Metals : Total Metals in Water by CRC ICPMS HDPE total (nitric acid)										
GLG-2024-00004-019	E420	12-Sep-2024	19-Sep-2024	180	7 days	✓	20-Sep-2024	180	9 days	✓
GEO 2024 00004 013	2 120	12 30p 202 1	10 000 2021	days	, dayo	,	20 000 2021	days	o dayo	,
Valetile Committee Committee DTEV by the Land Committee				days				days		
Volatile Organic Compounds : BTEX by Headspace GC-MS							I			
Glass vial (sodium bisulfate) GLG-2024-00004-001	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
GLG-2024-00004-001	LOTIA	12-36p-2024	19-36p-2024		1 uays	•	19-36p-2024	14 uays	r uays	•
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)	E611A	12 San 2024	10 Con 2024		7 days	√	10 Con 2024	11 dov-	7 days	✓
GLG-2024-00004-002	EDITA	12-Sep-2024	19-Sep-2024	14	7 days	•	19-Sep-2024	14 days	7 days	*
				days						

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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

Matrix: water						raidation. • -	noiding time excee	suarice, .	- vvicinii	Holding Hill
Analyte Group : Analytical Method	Method	Sampling Date	Ext	traction / Pr	reparation			Analys	is	
Container / Client Sample ID(s)			Preparation	Holding	g Times	Eval	Analysis Date	Holding	Times	Eval
			Date	Rec	Actual			Rec	Actual	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-003	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-004	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-005	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-006	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
			•	days						
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-010	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
				days					-	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
GLG-2024-00004-011	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
			·	days	-		·		•	
Volatile Organic Compounds : BTEX by Headspace GC-MS				,						
Glass vial (sodium bisulfate)										
GLG-2024-00004-012	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
		·	·	days	-		·		•	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)							I			
GLG-2024-00004-013	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 days	✓
		'	·	days			·			
Volatile Organic Compounds : BTEX by Headspace GC-MS				,-						
Glass vial (sodium bisulfate)							I			
GLG-2024-00004-019	E611A	12-Sep-2024	19-Sep-2024	14	7 days	✓	19-Sep-2024	14 days	7 davs	✓
222 232 1 0000 1 010			.3 000 2021	days	,0	·			,0	
				uays						

Legend & Qualifier Definitions

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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).

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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.

Quality Control Sample Type			Co	ount)	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1656903	2	29	6.9	5.0	1
Ammonia by Fluorescence	E298	1656950	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1661791	1	16	6.2	5.0	1
CCME PHC - F1 by Headspace GC-FID	E581.F1	1661790	1	16	6.2	5.0	✓
Chloride in Water by IC	E235.CI	1656906	2	33	6.0	5.0	1
Conductivity in Water	E100	1656904	2	33	6.0	5.0	1
Dissolved Metals in Water by CRC ICPMS	E421	1657898	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1656911	2	16	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1656908	2	33	6.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1656909	2	33	6.0	5.0	✓
pH by Meter	E108	1656902	2	39	5.1	5.0	1
Sulfate in Water by IC	E235.SO4	1656910	2	39	5.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1659714	2	25	8.0	5.0	1
Total Mercury in Water by CVAAS	E508	1662439	2	28	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1657833	2	20	10.0	5.0	1
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1656951	1	17	5.8	5.0	1
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1656953	1	18	5.5	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1656903	2	29	6.9	5.0	1
Ammonia by Fluorescence	E298	1656950	1	20	5.0	5.0	1
BTEX by Headspace GC-MS	E611A	1661791	1	16	6.2	5.0	√
CCME PHC - F1 by Headspace GC-FID	E581.F1	1661790	1	16	6.2	5.0	√
CCME PHCs - F2-F4 by GC-FID	E601	1661778	1	10	10.0	5.0	1
Chloride in Water by IC	E235.CI	1656906	2	33	6.0	5.0	√
Conductivity in Water	E100	1656904	2	33	6.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1657898	1	19	5.2	5.0	1
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1656911	2	16	12.5	5.0	1
Nitrate in Water by IC (Low Level)	E235.NO3-L	1656908	2	33	6.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1656909	2	33	6.0	5.0	√
pH by Meter	E108	1656902	2	39	5.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1656910	2	39	5.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1659714	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1662439	2	28	7.1	5.0	√
Total Metals in Water by CRC ICPMS	E420	1657833	1	20	5.0	5.0	√
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1656951	1	17	5.8	5.0	√
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1656953	1	18	5.5	5.0	1

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Matrix: Water		Evaluati	on: × = QC freque	ency outside spe	ecification; ✓ =	QC frequency with	hin specification
Quality Control Sample Type				unt		Frequency (%)	
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Control Samples (LCS) - Continued							
TSS by Gravimetry (Low Level)	E160-L	1659716	2	25	8.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1656903	2	29	6.9	5.0	✓
Ammonia by Fluorescence	E298	1656950	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1661791	1	16	6.2	5.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	1661790	1	16	6.2	5.0	✓
CCME PHCs - F2-F4 by GC-FID	E601	1661778	1	10	10.0	5.0	✓
Chloride in Water by IC	E235.CI	1656906	2	33	6.0	5.0	✓
Conductivity in Water	E100	1656904	2	33	6.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1657898	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1656911	2	16	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1656908	2	33	6.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1656909	2	33	6.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1656910	2	39	5.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1659714	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1662439	2	28	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1657833	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1656951	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1656953	1	18	5.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1659716	2	25	8.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1656950	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1661791	1	16	6.2	5.0	✓
Chloride in Water by IC	E235.CI	1656906	2	33	6.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1657898	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1656911	2	16	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1656908	2	33	6.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1656909	2	33	6.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1656910	2	39	5.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1662439	2	28	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1657833	1	20	5.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	1656951	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1656953	1	18	5.5	5.0	√

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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	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
	ALS Environmental -			sample. Conductivity measurements are temperature-compensated to 25°C.
	Vancouver			
pH by Meter	E108	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,
	ALS Environmental -			pH should be measured in the field within the recommended 15 minute hold time.
	Vancouver			
TSS by Gravimetry (Low Level)	E160-L	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
	ALS Environmental -			filtered solids. Samples containing very high dissolved solid content (i.e. seawaters,
	Vancouver			brackish waters) may produce a positive bias by this method. Alternate analysis
				methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight,
	ALS Environmental -			with gravimetric measurement of the residue.
	Vancouver			
Chloride in Water by IC	E235.CI	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrite in Water by IC (Low Level)	E235.NO2-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Nitrate in Water by IC (Low Level)	E235.NO3-L	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
	ALS Environmental -			
	Vancouver			
Sulfate in Water by IC	E235.SO4	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and /or UV detection.
	ALS Environmental -			
	Vancouver			
Alkalinity Species by Titration	E290	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total
	ALS Environmental -			alkalinity values.
	Vancouver			

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	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)
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been 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 total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
CCME PHC - F1 by Headspace GC-FID	E581.F1 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless
				qualified, all required quality control criteria of the CCME PHC method have been me including response factor and linearity requirements.

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Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
CCME PHCs - F2-F4 by GC-FID	E601	Water	CCME PHC in Soil - Tier	Sample extracts are analyzed by GC-FID for CCME hydrocarbon fractions (F2-F4).
	ALS Environmental - Calgary		1	Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A ALS Environmental - Calgary	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	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 ALS Environmental - Vancouver	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.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Vancouver	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Nitrite (as N) converted to Nitrite (as NO2)	EC235.NO2A ALS Environmental - Vancouver	Water	Calculation	Nitrite by IC measured as N is converted to the NO2 form by calculation.
Nitrate (as N) converted to Nitrate (as NO3)	EC235.NO3A ALS Environmental - Vancouver	Water	Calculation	Nitrate by IC measured as N is converted to the NO3 form by calculation.
F1-BTEX	EC580 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
Sum F1 to F4 (C6-C50)	EC581 ALS Environmental - Calgary	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

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Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
	ALS Environmental -			
	Vancouver			
Preparation for Total Organic Carbon by	EP355	Water		Preparation for Total Organic Carbon by Combustion
Combustion				
	ALS Environmental -			
	Vancouver			
Digestion for Total Phosphorus in water	EP372	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
	ALS Environmental -			
	Vancouver			
Dissolved Metals Water Filtration	EP421	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
	ALS Environmental -			
	Vancouver			
VOCs Preparation for Headspace Analysis	EP581	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the
				headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.
	ALS Environmental -			
	Calgary			
PHCs and PAHs Hexane Extraction	EP601	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
	ALS Environmental -			
	Calgary			

ALS Canada Ltd.



QUALITY CONTROL REPORT

Work Order Page :YL2401501 : 1 of 17

Client : Stantec Consulting Ltd. Laboratory : ALS Environmental - Yellowknife

Account Manager : Oliver Gregg Contact : Natalie Normandeau Address Address :4910 53 Street

:314 Old Airport Road, Unit 116

Yellowknife, Northwest Territories Canada X1A 3T3

Telephone :1 867 445 7143 Date Samples Received

: Gordon Lake - Phase 1 LTMP - Water :13-Sep-2024 09:54 :123515016.400.200 **Date Analysis Commenced** : 17-Sep-2024

C-O-C number Issue Date :23-Sep-2024 12:47

Sampler

Site

Quote number : YL24-STAC100-0003 Gordon Lake - Phase I LTMP

Yellowknife NT Canada X1A 2P4

No. of samples received : 11 No. of samples analysed :11

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

Position

- 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

Cianotorios

Telephone Project

PO

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	
Angelo Salandanan	Lab Assistant	Vancouver Metals, Burnaby, British Columbia	
George Huang	Supervisor - Inorganic	Calgary Organics, Calgary, Alberta	
Joshua Stessun	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Jyotsnarani Devi	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia	
Leon Yang	Analyst	Vancouver Inorganics, Burnaby, British Columbia	
Nguyen Tran	Laboratory Analyst	Calgary Organics, Calgary, Alberta	
Owen Cheng		Vancouver Metals, Burnaby, British Columbia	

Laboratory Donartment

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Work Order : YL2401501

Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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.

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Client : Stantec Consulting Ltd.

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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												
VA24C4258-001	Anonymous	pH		E108	0.10	pH units	7.47	7.54	0.933%	4%		
Physical Tests (QC	Lot: 1656903)											
VA24C4258-001	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	27.1	27.2	0.368%	200%		
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%		
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%		
		Alkalinity, phenolphthalein (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR		
		Alkalinity, total (as CaCO3)		E290	1.0	mg/L	27.1	27.2	0.368%	20%		
Physical Tests (QC	Lot: 1656904)											
VA24C4258-001	Anonymous	Conductivity		E100	2.0	μS/cm	179	178	0.447%	10%		
Physical Tests (QC	Lot: 1656938)											
VA24C4314-003	Anonymous	рН		E108	0.10	pH units	8.13	8.14	0.123%	4%		
Physical Tests (QC	Lot: 1656939)											
VA24C4314-003	Anonymous	Conductivity		E100	2.0	μS/cm	263	259	1.53%	10%		
Physical Tests (QC	Lot: 1656940)											
VA24C4314-003	Anonymous	Alkalinity, bicarbonate (as CaCO3)		E290	1.0	mg/L	76.9	77.4	0.648%	200%		
		Alkalinity, carbonate (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%		
		Alkalinity, hydroxide (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0.00%	200%		
		Alkalinity, phenolphthalein (as CaCO3)		E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR		
		Alkalinity, total (as CaCO3)		E290	1.0	mg/L	76.9	77.4	0.648%	20%		
Physical Tests (QC	Lot: 1659714)											
YL2401475-001	Anonymous	Solids, total dissolved [TDS]		E162-L	15.0	mg/L	586	581	0.942%	20%		
Physical Tests (QC	Lot: 1659715)											
YL2401501-007	GLG-2024-00004-010	Solids, total dissolved [TDS]		E162-L	10.0	mg/L	66.8	70.8	4.0	Diff <2x LOR		
Anions and Nutrien	ts (QC Lot: 1656906)											
VA24C4258-001	Anonymous	Chloride	16887-00-6	E235.CI	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR		
	ts (QC Lot: 1656908)											
VA24C4258-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR		
Anions and Nutrien	ts (QC Lot: 1656909)											
VA24C4258-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR		

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



Anions and Nutrients (lient sample ID	Analyte		: Water						Laboratory Duplicate (DUP) Report						
		Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier					
VA24C4258-001 An	(QC Lot: 1656910)															
	nonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	55.3	55.2	0.161%	20%						
Anions and Nutrients ((QC Lot: 1656911)															
YL2401501-001 GL	LG-2024-00004-001	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR						
Anions and Nutrients ((QC Lot: 1656941)															
VA24C4313-001 An	nonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	101	101	0.0394%	20%						
Anions and Nutrients ((QC Lot: 1656943)															
VA24C4313-001 An	nonymous	Chloride	16887-00-6	E235.CI	0.50	mg/L	2.95	2.93	0.02	Diff <2x LOR						
Anions and Nutrients ((QC Lot: 1656945)															
VA24C4313-001 An	nonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR						
Anions and Nutrients ((QC Lot: 1656946)															
VA24C4313-001 An	nonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR						
Anions and Nutrients ((QC Lot: 1656947)															
VA24C4314-001 An	nonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR						
Anions and Nutrients ((QC Lot: 1656950)															
FJ2402775-001 An	nonymous	Ammonia, total (as N)	7664-41-7	E298	0.100	mg/L	1.51	1.52	0.759%	20%						
Anions and Nutrients ((QC Lot: 1656953)															
YL2401501-001 GL	LG-2024-00004-001	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0140	0.0129	0.0011	Diff <2x LOR						
Organic / Inorganic Car	rbon (QC Lot: 1656951															
YL2401501-001 GL	LG-2024-00004-001	Carbon, total organic [TOC]		E355-L	0.50	mg/L	2.97	3.14	0.17	Diff <2x LOR						
Total Metals (QC Lot: 1	1657833)															
YL2401478-001 An	nonymous	Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00026	0.00026	0.000005	Diff <2x LOR						
YL2401478-001 An	nonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	1.67	1.78	6.14%	20%						
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.0679	0.0695	2.38%	20%						
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.0654	0.0681	3.94%	20%						
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0873	0.0905	3.54%	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	0.168	0.151	10.7%	20%						
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000753	0.0000812	7.53%	20%						
		Calcium, total	7440-70-2	E420	0.050	mg/L	212	204	3.87%	20%						
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000172	0.000182	5.99%	20%						
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.0103	0.0111	7.33%	20%						
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00456	0.00467	2.47%	20%						
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0151	0.0160	5.96%	20%						

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water	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		
<u> </u>	ot: 1657833) - continued												
YL2401478-001	Anonymous	Iron, total	7439-89-6	E420	0.010	mg/L	2.98	3.06	2.63%	20%			
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00895	0.00910	1.67%	20%			
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0200	0.0192	4.00%	20%			
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	53.6	55.7	3.84%	20%			
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.108	0.113	4.74%	20%			
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00771	0.00811	4.99%	20%			
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00834	0.00867	3.88%	20%			
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.080	0.076	0.004	Diff <2x LOR			
		Potassium, total	7440-09-7	E420	0.050	mg/L	6.54	6.86	4.78%	20%			
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00582	0.00622	6.77%	20%			
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000217	0.000233	0.000015	Diff <2x LOR			
		Silicon, total	7440-21-3	E420	0.10	mg/L	3.27	3.32	1.50%	20%			
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000039	0.000039	0.0000003	Diff <2x LOR			
		Sodium, total	7440-23-5	E420	0.050	mg/L	94.9	99.7	4.88%	20%			
		Strontium, total	7440-24-6	E420	0.00020	mg/L	1.86	2.03	8.87%	20%			
		Sulfur, total	7704-34-9	E420	0.50	mg/L	203	202	0.920%	20%			
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	0.00022	0.00022	0.000004	Diff <2x LOR			
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000017	0.000016	0.0000009	Diff <2x LOR			
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00025	0.00026	0.000008	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	0.0800	0.0842	5.06%	20%			
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00350	0.00356	1.74%	20%			
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00708	0.00733	3.38%	20%			
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0121	0.0129	0.0008	Diff <2x LOR			
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00055	0.00060	0.00005	Diff <2x LOR			
Total Metals (QC Lo	ot: 1662439)												
YL2401456-011	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR			
Total Metals (QC Lo	ot: 1662440)												
YL2401501-004	GLG-2024-00004-004	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR			
Dissolved Metals (C	· ·												
YL2401478-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.050	mg/L	204	199	2.83%	20%			
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	54.1	53.9	0.496%	20%			
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	6.46	6.54	1.18%	20%			
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	93.6	92.2	1.50%	20%			

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water							Labora	tory Duplicate (D	UP) Report		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Volatile Organic Co	mpounds (QC Lot: 1661	791)									
CG2413613-001	Anonymous	Benzene	71-43-2	E611A	0.50	μg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	
		Ethylbenzene	100-41-4	E611A	0.50	μg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	μg/L	<0.50	<0.50	0	Diff <2x LOR	
		Styrene	100-42-5	E611A	0.50	μg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	
		Toluene	108-88-3	E611A	0.50	μg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	
		Xylene, m+p-	179601-23-1	E611A	0.40	μg/L	<0.00040 mg/L	<0.40	0	Diff <2x LOR	
		Xylene, o-	95-47-6	E611A	0.30	μg/L	<0.00030 mg/L	<0.30	0	Diff <2x LOR	
Hydrocarbons (QC	Lot: 1661790)										
CG2413613-001	Anonymous	F1 (C6-C10)		E581.F1	100	μg/L	<0.10 mg/L	<100	0	Diff <2x LOR	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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.

nalyte	CAS Number Method	LOR	Unit	Result	Qualifier
nysical Tests (QCLot: 1656903)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
nysical Tests (QCLot: 1656904)					•
Conductivity	E100	1	μS/cm	1.2	
nysical Tests (QCLot: 1656939)					
Conductivity	E100	1	μS/cm	1.2	
nysical Tests (QCLot: 1656940)					
Alkalinity, bicarbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, carbonate (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, hydroxide (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	<1.0	
Alkalinity, total (as CaCO3)	E290	1	mg/L	<1.0	
nysical Tests (QCLot: 1659714)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
nysical Tests (QCLot: 1659715)					
Solids, total dissolved [TDS]	E162-L	3	mg/L	<3.0	
nysical Tests (QCLot: 1659716)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
nysical Tests (QCLot: 1659717)					
Solids, total suspended [TSS]	E160-L	1	mg/L	<1.0	
nions and Nutrients (QCLot: 1656906)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
nions and Nutrients (QCLot: 1656908)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
nions and Nutrients (QCLot: 1656909)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
nions and Nutrients (QCLot: 1656910)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	< 0.30	

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Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1656911)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
Anions and Nutrients (QCLot: 1656941)					
Sulfate (as SO4)	14808-79-8 E235.SO4	0.3	mg/L	<0.30	
Anions and Nutrients (QCLot: 1656943)					
Chloride	16887-00-6 E235.CI	0.5	mg/L	<0.50	
Anions and Nutrients (QCLot: 1656945)					
Nitrate (as N)	14797-55-8 E235.NO3-L	0.005	mg/L	<0.0050	
Anions and Nutrients (QCLot: 1656946)					
Nitrite (as N)	14797-65-0 E235.NO2-L	0.001	mg/L	<0.0010	
Anions and Nutrients (QCLot: 1656947)					
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	<0.0010	
Anions and Nutrients (QCLot: 1656950)					
Ammonia, total (as N)	7664-41-7 E298	0.005	mg/L	<0.0050	
Anions and Nutrients (QCLot: 1656953)					
Phosphorus, total	7723-14-0 E372-U	0.002	mg/L	<0.0020	
Organic / Inorganic Carbon (QCLot: 1656	6951)				
Carbon, total organic [TOC]	E355-L	0.5	mg/L	<0.50	
Total Metals (QCLot: 1657833)					
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	

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Analyte	CAS Number Method	LOR	Unit	Result	Qualifier
otal Metals (QCLot: 1657833) - con	tinued				
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	
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	
otal Metals (QCLot: 1662439)					
Mercury, total	7439-97-6 E508	0.000005	mg/L	<0.000050	
otal Metals (QCLot: 1662440)					
Mercury, total	7439-97-6 E508	0.000005	mg/L	<0.000050	
issolved Metals (QCLot: 1657898)					
Calcium, dissolved	7440-70-2 E421	0.05	mg/L	<0.050	
Magnesium, dissolved	7439-95-4 E421	0.005	mg/L	<0.0050	
Potassium, dissolved	7440-09-7	0.05	mg/L	<0.050	
Sodium, dissolved	7440-23-5 E421	0.05	mg/L	<0.050	
olatile Organic Compounds (QCLot	: 1661791)				
Benzene	71-43-2 E611A	0.5	μg/L	<0.50	
Ethylbenzene	100-41-4 E611A	0.5	μg/L	<0.50	
Methyl-tert-butyl ether [MTBE]	1634-04-4 E611A	0.5	μg/L	<0.50	

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Client : Stantec Consulting Ltd.

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1661791) - continued					
Styrene	100-42-5	E611A	0.5	μg/L	<0.50	
Toluene	108-88-3	E611A	0.5	μg/L	<0.50	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	<0.40	
Xylene, o-	95-47-6	E611A	0.3	μg/L	<0.30	
Hydrocarbons (QCLot: 166177	['] 8)					
F2 (C10-C16)		E601	100	μg/L	<100	
F3 (C16-C34)		E601	250	μg/L	<250	
F4 (C34-C50)		E601	250	μg/L	<250	
Hydrocarbons (QCLot: 166179	00)					
F1 (C6-C10)		E581.F1	100	μg/L	<100	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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 C	AS Number Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier	
Physical Tests (QCLot: 1656902)									
рН	E108		pH units	7 pH units	100	98.0	102		
Physical Tests (QCLot: 1656903)									
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	229 mg/L	91.7	75.0	125		
Alkalinity, total (as CaCO3)	E290	1	mg/L	500 mg/L	102	85.0	115		
Physical Tests (QCLot: 1656904)									
Conductivity	E100	1	μS/cm	147 μS/cm	103	90.0	110		
Physical Tests (QCLot: 1656938)									
рН	E108		pH units	7 pH units	100	98.0	102		
Physical Tests (QCLot: 1656939)									
Conductivity	E100	1	μS/cm	147 μS/cm	99.1	90.0	110		
Physical Tests (QCLot: 1656940)									
Alkalinity, phenolphthalein (as CaCO3)	E290	1	mg/L	229 mg/L	107	75.0	125		
Alkalinity, total (as CaCO3)	E290	1	mg/L	500 mg/L	103	85.0	115		
Physical Tests (QCLot: 1659714)									
Solids, total dissolved [TDS]	E162-L	3	mg/L	1000 mg/L	111	85.0	115		
Physical Tests (QCLot: 1659715)									
Solids, total dissolved [TDS]	E162-L	3	mg/L	1000 mg/L	112	85.0	115		
Physical Tests (QCLot: 1659716)									
Solids, total suspended [TSS]	E160-L	1	mg/L	150 mg/L	97.2	85.0	115		
Physical Tests (QCLot: 1659717)									
Solids, total suspended [TSS]	E160-L	1	mg/L	150 mg/L	92.5	85.0	115		
Anions and Nutrients (QCLot: 1656906)	16887-00-6 E235.CI	0.5	ma er /1	400 mg/l	100	90.0	110		
	10007-00-0 E235.CI	0.5	mg/L	100 mg/L	100	90.0	110		
Anions and Nutrients (QCLot: 1656908)	14797-55-8 E235.NO3-L	0.005	ma/l	2.5 mg/l	00.7	00.0	110		
	14/9/-00-0 EZ30.NO3-L	0.005	mg/L	2.5 mg/L	99.7	90.0	110		
Anions and Nutrients (QCLot: 1656909)	14797-65-0 E235.NO2-L	0.001	ma/l	0.5 mg/l	101	90.0	110		
(44 11)	14/9/-00-0 E230.NOZ-L	0.001	mg/L	0.5 mg/L	101	90.0	110		
Anions and Nutrients (QCLot: 1656910)	14000 70 0 5225 504	0.3	m = /I	100/1	104	00.0	140		
	14808-79-8 E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110		
Anions and Nutrients (QCLot: 1656911)	14065 44 0 5070 11	0.004	m a /l	0.02 ma/l	09.7	90.0	120		
Phosphate, ortho-, dissolved (as P)	14265-44-2 E378-U	0.001	mg/L	0.03 mg/L	98.7	80.0	120		

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water					Laboratory Control Sample (LCS) Report					
					Spike	Recovery (%)	Recovery	Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier	
Anions and Nutrients (QCLot: 1656941)										
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110		
Anions and Nutrients (QCLot: 1656943)										
Chloride	16887-00-6	E235.CI	0.5	mg/L	100 mg/L	99.2	90.0	110		
Anions and Nutrients (QCLot: 1656945)										
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.4	90.0	110		
Anions and Nutrients (QCLot: 1656946)										
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110		
Anions and Nutrients (QCLot: 1656947)										
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	100.0	80.0	120		
Anions and Nutrients (QCLot: 1656950)										
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.2	85.0	115		
Anions and Nutrients (QCLot: 1656953)										
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	97.3	80.0	120		
Organic / Inorganic Carbon (QCLot: 1656951)										
Carbon, total organic [TOC]		E355-L	0.5	mg/L	8.57 mg/L	96.4	80.0	120		
Total Metals (QCLot: 1657833)										
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	108	80.0	120		
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120		
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	109	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	110	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	106	80.0	120		
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	103	80.0	120		
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	106	80.0	120		
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	102	80.0	120		
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	107	80.0	120		
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	105	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	95.9	80.0	120		
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	107	80.0	120		
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	116	80.0	120		
		E420	0.005	mg/L	50 mg/L	108	80.0	120		
Magnesium, total	1439-93-4									

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Client : Stantec Consulting Ltd.



		Matrix: Water						6) Report ry Limits (%)						
					Spike	Recovery (%)	Recovery	Limits (%)						
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier					
Total Metals (QCLot: 1657833) - continued														
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120						
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120						
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	106	80.0	120						
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	103	80.0	120						
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120						
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	100	80.0	120						
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	114	80.0	120						
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.0	80.0	120						
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	106	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	99.7	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	105	80.0	120						
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	104	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	104	80.0	120						
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	107	80.0	120						
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	80.0	120						
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120						
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	101	80.0	120						
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120						
Total Metals (QCLot: 1662439)														
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.4	80.0	120						
Total Metals (QCLot: 1662440)														
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	96.5	80.0	120						
Dissolved Metals (QCLot: 1657898)									ı					
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	96.6	80.0	120						
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.6	80.0	120						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.0	80.0	120						
Volatile Organic Compounds (QCLot: 166179	01)								•					
Benzene	71-43-2	E611A	0.5	μg/L	100 μg/L	99.4	70.0	130						
Ethylbenzene	100-41-4	E611A	0.5	μg/L	100 μg/L	103	70.0	130						
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	μg/L	100 μg/L	106	70.0	130						

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water						Laboratory Co	ontrol Sample (LCS)	Report	
					Spike	Recovery (%)	Recovery	Limits (%)	
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot	: 1661791) - continued								
Styrene	100-42-5	E611A	0.5	μg/L	100 μg/L	111	70.0	130	
Toluene	108-88-3	E611A	0.5	μg/L	100 μg/L	102	70.0	130	
Xylene, m+p-	179601-23-1	E611A	0.4	μg/L	200 μg/L	105	70.0	130	
Xylene, o-	95-47-6	E611A	0.3	μg/L	100 μg/L	115	70.0	130	
Hydrocarbons (QCLot: 1661778)									
F2 (C10-C16)		E601	100	μg/L	3830 μg/L	80.5	70.0	130	
F3 (C16-C34)		E601	250	μg/L	7950 μg/L	89.9	70.0	130	
F4 (C34-C50)		E601	250	μg/L	4220 μg/L	89.8	70.0	130	
Hydrocarbons (QCLot: 1661790)									
F1 (C6-C10)		E581.F1	100	μg/L	2480 μg/L	86.6	70.0	130	

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Client : Stantec Consulting Ltd.

Project : Gordon Lake - Phase 1 LTMP - Water



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								(MS) Report	ecovery Limits (%) W High .0 125 .0 125 .0 125 .0 125 .0 125 .0 125 .0 125					
					Spil	ke	Recovery (%)	Recovery	/ Limits (%)					
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier				
Anions and Nutri	ents (QCLot: 165690	6)												
VA24C4258-002	Anonymous	Chloride	16887-00-6	E235.CI	101 mg/L	100 mg/L	101	75.0	125					
Anions and Nutri	ents (QCLot: 165690	8)												
VA24C4258-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125					
Anions and Nutri	ents (QCLot: 1656909	9)												
VA24C4258-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.509 mg/L	0.5 mg/L	102	75.0	125					
Anions and Nutri	ents (QCLot: 165691	0)												
VA24C4258-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L		ND	75.0	125					
Anions and Nutri	ents (QCLot: 165691	1)												
YL2401501-002	GLG-2024-00004-002	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0359 mg/L	0.03 mg/L	120	70.0	130					
Anions and Nutri	ents (QCLot: 165694	1)												
VA24C4313-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L		ND	75.0	125					
Anions and Nutri	ents (QCLot: 165694	3)												
VA24C4313-002	Anonymous	Chloride	16887-00-6	E235.CI	96.0 mg/L	100 mg/L	96.0	75.0	125					
Anions and Nutri	ents (QCLot: 165694	5)												
VA24C4313-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.46 mg/L	2.5 mg/L	98.2	75.0	125					
Anions and Nutri	ents (QCLot: 165694	6)												
VA24C4313-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.468 mg/L	0.5 mg/L	93.5	75.0	125					
Anions and Nutri	ents (QCLot: 165694)	7)												
VA24C4314-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0370 mg/L	0.03 mg/L	123	70.0	130					
Anions and Nutri	ents (QCLot: 165695)	0)												
FJ2402775-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0904 mg/L	0.1 mg/L	90.4	75.0	125					
Anions and Nutri	ents (QCLot: 165695	3)												
YL2401501-002	GLG-2024-00004-002	Phosphorus, total	7723-14-0	E372-U	ND mg/L		ND	70.0	130					
Organic / Inorgar	nic Carbon (QCLot: 10	656951)												
YL2401501-002	GLG-2024-00004-002	Carbon, total organic [TOC]		E355-L	ND mg/L		ND	70.0	130					
Total Metals (QC	Lot: 1657833)													
YL2401478-002	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L		ND	70.0	130					
		Antimony, total	7440-36-0	E420	ND mg/L		ND	70.0	130					
		Arsenic, total	7440-38-2	E420	ND mg/L		ND	70.0	130					
		Barium, total	7440-39-3	E420	ND mg/L		ND	70.0	130					
	T.	Beryllium, total	7440-41-7	E420	0.0410 mg/L	0.04 mg/L	102	70.0	130					

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water	Matrix: Water						Matrix Spike (MS) Report						
					Spi	ke	Recovery (%)	Recovery	Limits (%)				
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier			
otal Metals (QCI	Lot: 1657833) - cont	inued											
YL2401478-002	Anonymous	Bismuth, total	7440-69-9	E420	0.00898 mg/L	0.01 mg/L	89.8	70.0	130				
		Boron, total	7440-42-8	E420	ND mg/L		ND	70.0	130				
		Cadmium, total	7440-43-9	E420	0.00382 mg/L	0.004 mg/L	95.6	70.0	130				
		Calcium, total	7440-70-2	E420	ND mg/L		ND	70.0	130				
		Cesium, total	7440-46-2	E420	0.00960 mg/L	0.01 mg/L	96.0	70.0	130				
		Chromium, total	7440-47-3	E420	0.0390 mg/L	0.04 mg/L	97.6	70.0	130				
		Cobalt, total	7440-48-4	E420	0.0182 mg/L	0.02 mg/L	90.9	70.0	130				
		Copper, total	7440-50-8	E420	ND mg/L		ND	70.0	130				
		Iron, total	7439-89-6	E420	1.84 mg/L	2 mg/L	92.1	70.0	130				
		Lead, total	7439-92-1	E420	0.0185 mg/L	0.02 mg/L	92.5	70.0	130				
		Lithium, total	7439-93-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130				
		Magnesium, total	7439-95-4	E420	ND mg/L		ND	70.0	130				
		Manganese, total	7439-96-5	E420	ND mg/L		ND	70.0	130				
		Molybdenum, total	7439-98-7	E420	0.0198 mg/L	0.02 mg/L	99.1	70.0	130				
		Nickel, total	7440-02-0	E420	0.0359 mg/L	0.04 mg/L	89.7	70.0	130				
		Phosphorus, total	7723-14-0	E420	9.77 mg/L	10 mg/L	97.7	70.0	130				
		Potassium, total	7440-09-7	E420	ND mg/L		ND	70.0	130				
		Rubidium, total	7440-17-7	E420	0.0191 mg/L	0.02 mg/L	95.6	70.0	130				
		Selenium, total	7782-49-2	E420	0.0426 mg/L	0.04 mg/L	107	70.0	130				
		Silicon, total	7440-21-3	E420	10.1 mg/L	10 mg/L	101	70.0	130				
		Silver, total	7440-22-4	E420	0.00382 mg/L	0.004 mg/L	95.6	70.0	130				
		Sodium, total	7440-23-5	E420	ND mg/L	0.004 mg/L	ND	70.0	130				
		Strontium, total	7440-24-6	E420	ND mg/L		ND	70.0	130				
		Sulfur, total	7704-34-9	E420	ND mg/L		ND	70.0	130				
		Tellurium, total	13494-80-9	E420	0.0415 mg/L	0.04 mg/L	104	70.0	130				
		Thallium, total	7440-28-0	E420	0.00369 mg/L	0.004 mg/L	92.2	70.0	130				
		Thorium, total	7440-29-1	E420	,	_		70.0	130				
		· ·		E420	0.0197 mg/L	0.02 mg/L	98.6	70.0					
		Tin, total	7440-31-5		0.0195 mg/L	0.02 mg/L	97.5		130				
		Titanium, total	7440-32-6	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130				
		Tungsten, total	7440-33-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130				
		Uranium, total	7440-61-1	E420	0.00392 mg/L	0.004 mg/L	98.0	70.0	130				
		Vanadium, total	7440-62-2	E420	0.0993 mg/L	0.1 mg/L	99.3	70.0	130				
		Zinc, total	7440-66-6	E420	0.360 mg/L	0.4 mg/L	90.0	70.0	130				
otal Metals (QCI	ot: 1662439)	Zirconium, total	7440-67-7	E420	0.0382 mg/L	0.04 mg/L	95.4	70.0	130				
YL2401475-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000924 mg/L	0 mg/L	92.4	70.0	130				
otal Metals (QCI	•	iviercury, total	1438-81-0	E300	0.0000924 Hig/L	o mg/L	32.4	70.0	130				
/L2401501-005	GLG-2024-00004-005	Mercury, total	7439-97-6	E508	0.0000924 mg/L	0 mg/L	92.4	70.0	130				
	(QCLot: 1657898)	iviercury, total	1439-91-0	E000	0.0000924 mg/L	U mg/L	92.4	70.0	130				
YL2401478-002	Anonymous	Coloium diooshied	7440.70.2	E421	ND ma/l		ND	70.0	120				
T LZ4014 / 8-00Z	Anonymous	Calcium, dissolved	7440-70-2		ND mg/L		ND	70.0	130				
		Magnesium, dissolved	7439-95-4	E421	ND mg/L		ND	70.0	130				
		Potassium, dissolved	7440-09-7	E421	ND mg/L		ND	70.0	130				
		Sodium, dissolved	7440-23-5	E421	ND mg/L		ND	70.0	130				

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Client : Stantec Consulting Ltd.



Sub-Matrix: Water	ub-Matrix: Water					Matrix Spike (MS) Report						
					Spi	ke	Recovery (%)	Recovery Limits (%)				
Laboratory sample I	D Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier		
Volatile Organic Compounds (QCLot: 1661791)												
CG2413613-001	Anonymous	Benzene	71-43-2	E611A	97.0 μg/L	100 μg/L	97.0	70.0	130			
		Ethylbenzene	100-41-4	E611A	95.8 μg/L	100 μg/L	95.8	70.0	130			
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	107 μg/L	100 μg/L	107	70.0	130			
		Styrene	100-42-5	E611A	111 µg/L	100 μg/L	111	70.0	130			
		Toluene	108-88-3	E611A	97.5 μg/L	100 μg/L	97.5	70.0	130			
		Xylene, m+p-	179601-23-1	E611A	204 μg/L	200 μg/L	102	70.0	130			
		Xylene, o-	95-47-6	E611A	112 μg/L	100 μg/L	112	70.0	130			

Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Page 1 of 1



Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final r	report	Reports / F	Recipients		T		Tu	rnarou	ind Ti	ne (TAT)	Reque	sted								
Company:	Stantec Consulting Ltd.		ort Format: 🔽 PDF		DD (DIGITAL)	Routine [R] if received by 3pm M-F - no surcharges apply															
Contact:	Natalie Normandeau										1-F - 20%			inimum	1	AFF	X ALS	BARC	ODE L	ABEL H	FRE
Phone:	204 509-9864	Compare	Compare Results to Criteria on Report - provide details below it box criecken —			3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum									se only						
	Company address below will appear on the final report	Select Distr	Distribution: 🗹 EMAIL 🗌 MAIL 🗀 FAX					•			M-F - 509 FF - 1009		-								
Street:	4910 53 Street	Email 1 or F				1 day [E] if received by 3pm M-F - 100% rush surcharge minimum Same day [E2] if received by 10am M-S - 200% rush surcharge.						.									
City/Province: Yellowknife/NT Email 2		steve.hannington			Additional fees may apply to rush requests on weekends, statut						statutory	tory holidays and for non-routine tests.									
Postal Code: X1A 2P4 Email 3		ryan.weber@stan	tec.com 🔻	. week	Date and Time Required for all E&P TATs:						uu-	od minim yy nikimin am/pri									
Invoice To	Same as Report To		Invoice R	ecipients		For all tests with rush TATs requested, please contact yo						act your	AM to c	onfirm &	vailabili	y.					
	Copy of Invoice with Report YES V NO	Select Invoi	ce Distribution: 🔽 Ef	MAIL MAIL	FAX		-					Αı	nalysis	Requ	est						
Company:	Stantec Consulting Ltd.	Email 1 or F	ax SAPinvoices@sta	intec.com		33		li	ndicate	Filtered	(F), Pres	rved (P)	or Filtere	d and f	Preserv	ed (F/P	below.			Τ <u>α</u>	(\$)
Contact:	Natalie Normandeau	Email 2														\Box				ਵ	털
	Project Information		Oil and Gas Require	d Fields (client	use)	AINER			1	12										REQUIRED	e l
ALS Client Coc	le / QUOTE #: YL24-STAC100-0003	AFE/Cost Cen	ter:	PO#] =			t Bay	t Bay									۔ ا		S)
Job / Project #	Gordon Lake - Phase I LTMP - Water	Major/Minor Co	ode:	Routing Code:		ONT		S S	West	Nes				1]	1 2	8
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ALS Lab Worl	Order # (ALS use only):	ALS Conta	ct:	Sampler:		NUMBER	GroundWater Pa	Water	Surface Water P	Surface Water P	ည								AMPLES		
ALS Sample #	Sample Identification and/or Coo	rdinates	Date	Time	Sample Type	₹	E G	Surface	lace	ace	e c								Ţ		δ
(ALS use only)	(This description will appear on the	e report)	(dd-mmm-yy)	(hh:mm)	Sample Type	ž	Gro	Sur	Sur	Sur	Water						I	•	4	江亞	
	GLG-2024-00004-001		12-Sep-24	13:00	surface water	10	R								. 57		sivic	η_{Oi}			
2.14	GLG-2024-00004-002		12-Sep-24	13:30	surface water	10	R						1.	iron.	mer	itai i	J. *			T	
	GLG-2024-00004-003		12-Sep-24	12:15	surface water	10	R					1	En	non,	kuite Kuite	ar Re	feren	Ce 1	1	1	1
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	GLG-2024-00004-006		12-Sep-24	10:35	surface water	10	R		-	-;		+		•		. 	. 3 W	12	1///	-	1
	GLG-2024-00004-010		12-Sep-24	10:30	surface water	10		R					1	1	W 1	14.1	36	1.1	MM		
	GLG-2024-00004-011		12-Sep-24	11:00	surface water	10		R			-	_	†	1		1744	11	$T_{i,j}$			+
 	GLG-2024-00004-012		12-Sep-24	11:45	surface water	10		R				+	+	1		113	181	14.70	1 11		1
	GLG-2024-00004-013		12-Sep-24	12:50	surface water	10		R				-	+			BI A	007.8	73 559	5		_
	GLG-2024-00004-019		12-Sep-24	10:35	surface water	10	Ŕ						+	7	elepho	ue: +	(MOI -			T	+
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	Note Note	es / Specify Limits for res	ult evaluation by select	ing from drop-do	wn below	╁┈╵		<u> </u>			A SADL F	DECE	IDT DE	TAU 6					—-		
	Water (DW) Samples (client use)	<u> </u>	(Excel COC only)			<u>_</u>			٠.		SAMPLE	KECE	IFT DE	IAILS	S (ALS	use	yniy)				
	en from a Regulated DW System?					Cooli	ing Me	ethod:		NONE		E 🗍	ICE PACE	s [FRO	ZEN] coo	ING IN	NITIATED	<u>, , , , , , , , , , , , , , , , , , , </u>
	ES 🖸 NO					Coole			Seals			YES _	N/A	Samp		stody S				YES [] N/A
Are samples for	human consumption/ use?					<u> </u>	-	IITIAL	COOLE	RTEM	PERATUR	ES °C			FII	VAL CO	OLER '	TEMPE	RATURE	is °C ·	
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Gordon Lake Group of Sites Long-Term Monitoring Report - Year 6

Appendix G 2024 Camlaren Tailings and Soil Containment Area Annual Geotechnical Inspection Report February 28, 2025

Appendix G 2024 Camlaren Tailings and Soil Containment Area Annual Geotechnical Inspection Report



G.1

2024 Camlaren Tailings and Soil Containment Area Annual Geotechnical Inspection Report

Gordon Lake Group of Sites

Prepared for:

Public Services and Procurement Canada

Prepared by:

K'alo-Stantec Limited

December 4, 2024

Project No.: 123515016



This document entitled 2024 Camlaren Tailings and Soil Containment Area Annual Geotechnical Inspection Report was prepared by K'alo-Stantec ("K'alo-Stantec") for the account of Public Services and Procurement Canada (PSPC) (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects K'alo-Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and the contract between K'alo-Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not consider any subsequent changes. In preparing the document, K'alo-Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that K'alo-Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

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EXECUTIVE SUMMARY

K'alo-Stantec Limited (K'alo-Stantec) provides design, construction, performance monitoring, and regulatory and community engagement support for the Gordon Lakes Group (GLG) of Sites. The project is directed by Public Services and Procurement Canada (PSPC) on behalf of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC). K'alo-Stantec's scope of work includes annual geotechnical inspection and reporting for one historical tailings facility, the Camlaren Tailings and Soil Containment Area (TSCA). Work is carried out as part of the Long-Term Monitoring Plan (LTMP). The LTMP includes a requirement to perform annual geotechnical inspections for the Camlaren TSCA for a five-year period, beginning in 2019.

Visual Inspection – A visual inspection of the Camlaren TSCA and associated facilities was performed by Steve Bundrock and Steffen Karl of Stantec on July 16, 2024.

In general, the facility was observed to be in good condition and no substantial changes have occurred when compared against observations collected during the Year 1 to Year 5 LTM inspections. Some historical deficiencies, such as minor cracking and deformation, appeared to be self-healed in 2024.

Significant Changes in the Areas – There does not appear to be recently constructed human developments or infrastructure near the TSCA facility.

Instrumentation and Monitoring – Instrumentation at the TSCA facility was installed in September 2018 and included two (2) thermistors, two (2) standpipe monitoring wells, and three (3) locations for vibrating wire piezometers with double nested sensor tips. Outside of the perimeter of the facility, four (4) standpipes were installed as part of the TSCA perimeter monitoring related to SNP sampling. Instrumentation results were incorporated in this DSI and can be reviewed in Section 5.0.

Dam Safety Deficiencies and Non-Conformances – There were two priority 3 deficiencies identified during the 2024 DSI. These deficiencies were related to fresh animal burrows and minor surface erosion. The safety deficiencies and non-conformances identified as part of the Year 1 to Year 5 LTM inspections were compiled, reviewed, and updated, and priorities were assigned based on the work completed by others. Historical LTM Reports did not provide a table of deficiencies and/or non-conformances. Instead, deficiencies and non-conformances were identified throughout the text of those reports.

The statements made in this Executive Summary are subject to the project conditions described in the Closure (Section 8.0) and are to be read in conjunction with the remainder of this report.



1.0 INTRODUCTION

The Gordon Lake Group (GLG) Remediation Project was established in 2016 and included the remediation of nine abandoned mine sites located approximately 80 km NW of Yellowknife, Northwest Territories (NT), and included the following sites: 1) Burnt Island, 2) Camlaren, 3) Goodrock, 4) Kidney Pond, 5) Murray Lake, 6) Storm, 7) Treacy, 8) Try Me, and 9) West Bay.

In 2016, Stantec Consulting Ltd. (Stantec) was contracted by Public Services and Procurement Canada (PSPC), on behalf of Crown Indigenous Relations and Northern Affairs Canada (CIRNAC), to provide engineering and technical support, as well as construction contract supervision, acting as Departmental Representative (DR), at the GLG Sites during the project.

Following the completion of remediation activities in 2019, Stantec was contracted by PSPC to implement the Long-Term Monitoring Plan (LTMP) for the remediated facilities. The LTMP included the requirement to perform an annual geotechnical inspection of the engineered TSCA at Camlaren, one of the Gordon Lake Sites. Stantec completed the annual geotechnical inspection in 2019 and 2020, while Englobe completed the annual geotechnical inspection in 2021 and 2022 and AECOM completed the annual geotechnical inspection in 2023. K'alo-Stantec was retained to complete the 2024 annual geotechnical inspection. The results of the 2024 geotechnical inspection are presented in this report.

1.1 PROJECT SCOPE

The scope of the annual geotechnical inspection and the results presented in this report are based on our observation of the Camlaren TSCA, our understanding of the history of the LTM Program for the GLG Sites, and applicable guidelines and regulations. As part of the 2024 annual geotechnical inspection, K'alo-Stantec completed the following tasks:

- 1. Visually inspected the Camlaren TSCA facility. The observations from the inspection are summarized in Section 3.1.3.
- Compiled, reviewed, and updated the existing dam safety deficiencies identified in the Year 1 to Year 5 LTM Reports. Historical LTM Reports did not provide a table of deficiencies and/or nonconformances. Instead, deficiencies and non-conformances were identified throughout the body text of those reports.
- 3. Identified new dam safety deficiencies, if any, and provided recommendations to address those deficiencies.
- 4. Prepared a report summarizing the results of the annual geotechnical inspection, including a summary of the regulatory review, the existing information review, the visual inspection and identified dam safety deficiencies and recommended actions (this report).

The Canadian Dams Association (CDA) defines dam deficiencies and non-conformances as follows (CDA, 2007):

"Deficiency - An inadequacy, or uncertainty in the adequacy, of the dam system to meet its
performance goals in accordance with good dam safety practices"; and,



 "Non-Conformance - An inadequacy in the non-physical controls (procedures, processes and management systems) necessary to maintain the safety of the dam."

In accordance with the scope of work for the Project, the 2024 annual geotechnical inspection scope was limited to the identification of dam safety-related physical deficiencies and a compilation, review, and update of the status of deficiencies and non-conformances identified during the DSIs which supported the Year 1 to Year 5 LTM Reports. The identification of non-conformances is typically performed during DSRs. Identification of other items that are not considered dam safety deficiencies or non-conformances, such as maintenance items that are not thought to impact dam safety or occupational health and safety items, were considered to be outside of the scope of this annual geotechnical inspection.

2.0 APPLICABLE GUIDELINES AND REGULATIONS

Tailings dams for closed mine sites in the Northwest Territories are regulated by the Mackenzie Valley Land and Water Board (MVLWB). To facilitate the care and maintenance of closed tailings facilities, MVLWB issued "Guidelines for the Closure and Reclamation of Advanced Exploration and Mine Sites in the Northwest Territories" (2013) (MVLWB Closure Guidelines, 2013). These guidelines recommend that dams and associated structures be designed, constructed, and maintained in accordance with the CDA Dam Safety Guidelines (2007). It should be noted that, following the issuance of the MVLWB Guidelines, the CDA Guidelines were updated in 2013; more recently, a technical bulletin was published by the CDA in 2014 which provided additional clarification regarding the application of the Dam Safety Guidelines to mining dams (CDA, 2014). These guidelines recommend that DSIs are performed on an annual or semi-annual basis depending upon the classification of the structure, that they include a visual examination of the dam and an examination of dam performance instrumentation, and that they be performed by professional engineers. CIRNAC has also advised K'alo-Stantec of their internal Dam Safety Management System and associated data sheets.



3.0 EXISTING INFORMATION REVIEW AND FACILITY DESCRIPTION

A limited amount of background information for the Camlaren TSCA was identified for the 2024 annual geotechnical inspection report. Fundamental existing information for this facility was presented in the 2018 Design Basis Report and the 2018 As-Built Report which includes:

- Stantec Consulting Ltd., September 11, 2018, Updated Report: Gordon Lake Group Design Basis, Submitted to PWGSC and INAC, File No: 121414585 (Stantec, 2018a).
- Stantec Consulting Ltd., December 21, 2018, FINAL 2018 As-Built Construction Camlaren TSCA, Part of GLG (Stantec, 2018b). Report prepared for Public Works and Government Services Canada and Indigenous and Northern Affairs Canada.

Aside from those listed above, K'alo-Stantec is not aware of other previous inspections, DSRs, or reviews related to the adequacy of the design and performance of the TSCA, such as geotechnical reviews, stability analyses, or water management analyses prior to 2019.

Based on these reports, engineering and construction details related to the TSCA involved stabilization of mine waste by regrading slopes and installing an engineered cover, as follows:

- Slopes were stabilized by regrading the perimeter dams to a slope of 3.1H:1V to 3.3H:1V.
- An engineered cover was placed over the tailings surface, consisting of a Bituminous Geomembrane (BGM) and an underlying, 0.5 m thick layer of sand for preventing water infiltration.
- Erosion protection was placed on the top of the engineered cover which consisted of willow branch vegetation. Coarse sand with rockfill and coco mats were also placed to provide erosion protection for the slopes of the TSCA.
- Lined surface ditches were constructed at the northwestern and southern perimeters of the TSCA to encourage drainage away from the TSCA and to prevent pooling of runoff against the embankment.
- Instrumentation was installed and a monitoring program was established for assessing the longterm performance of the TSCA.

The TSCA is oval-shaped in plan-view, roughly 200 m (north to south) by 130 m (west to east), and covers an area of approximately 2.5 hectares (ha). The top of the TSCA is dome-shaped and slopes outwards at a grade of approximately 4% to shed surface water runoff towards the perimeter of the facility. The TSCA has three embankments that form a uniform structure (i.e., there are no distinct geomorphological or structural boundaries) referred to as the North, East, and West Embankment. On average, the embankments are roughly 2 to 4 m high but are up to 5 m high at their highest section at the north embankment.



The composite BGM cover was placed over the entire TSCA and embankments. At the embankment toes, the BGM was placed on a prepared bedrock foundation and was covered with a sand/bentonite mixture. In areas of naturally low topography, the BGM liner was not secured to bedrock; instead, rockfill toe drains were constructed to relieve a potential build-up of pore pressures within the TSCA.

Perimeter ditches were constructed at the northwestern perimeter (Northern Ditch, referred to as Ditch 1 on the design drawings) and the southern perimeter (Southern Ditch, referred to as Ditch 2 on the design drawings). The ditches were lined with the BGM liner and were covered with riprap. The BGM liner extended from the side slopes and into the ditch bottom to prevent water infiltration into the TSCA.

3.1 FACILITY DESCRIPTION

3.1.1 Camlaren Tailings and Soil Containment Area

The GLG Sites were active between the late 1930s and 2008 with several companies involved in mining operations. Activities ranged from exploratory drilling to open-pit mining and were generally undertaken independently between the mine sites. Camlaren Mine was a former gold mine located on Muir Island in the southern portion of Gordon Lake. In 1980, a milling plant was erected. Tailings from the mine were deposited in the Camlaren tailings area which operated into the 1980s and was then abandoned.

The TSCA was an engineered mine waste containment facility that encompassed the Camlaren Mine tailings, formerly part of the tailings containment area (TCA), as well as impacted material (soil, tailings, waste rock) and non-hazardous debris (metal, wood, etc.) from the other GLG Sites. Impacted material and non-hazardous waste from the GLG Sites were transported to Camlaren in the winter of 2018, with a majority of material transported from February 4 to March 13, 2018. Some of the waste was transported via helicopter in the summer of 2018. Construction of the TSCA was completed between July and September, 2018. A summary of construction activities for the TSCA facility are provided in the 2018 As-Built Construction Report (Stantec, 2018b).

General characteristics of the TSCA are summarized in Table 3.1.



Table 3.1 TSCA Characteristics

TSCA General Properties						
TSCA Area	2.5 ha					
TSCA Peak Elevation	300.54 m					
TSCA Top Slope	3 – 4%					
Berm Composition	Sand fill dam with BGM composite cover					
Composite BGM Cover	BGM liner placed on sand bedding and covered with 0.5 m of sand					
Discharge Facilities	Perimeter ditches: Northern Ditch (Ditch 1) and Southern Ditch (Ditch 2)					
Design for Extreme	Designed to withstand seismic loads and 1 in 1,000-year					

Characteristics of the TSCA dams are presented in table 3.2.

Table 3.2 TSCA Dam Characteristics

Item	North Dam	East Dam	South Dam				
Embankment Composition	Sand fill dam with BGM composite cover						
Embankment Purpose	Main tailings containment dam converted into solid mine waste						
Nominal Height (m)	5	4 – 4.5	2				
Berm Crest Elevation (m)	297.75	297.5 – 297.75	297.75				
Nominal Length (m)	160	160	60				
Downstream Slope	3H:1V						
Chainages (m)	0 to 0+160	0+160 to 0+330	0+330 to 0+390				



3.1.2 Dam Classification

In 2020, Stantec completed a review of the TSCA structure to determine whether it met the definition of a dam in accordance with the 2013 Canadian Dam Association (CDA) Dam Safety Guidelines and other applicable CDA technical bulletins. Findings were summarized in a report titled, "Camlaren TSCA Embankment Classification Assessment" (Stantec, 2020b).

It was determined that the TSCA embankments should be considered to be dam structures since a breach of the perimeter containment, regardless of the triggering mechanism, would likely trigger a flow of the contents beyond the perimeter containment. Although it was determined that the TSCA embankments should be considered to be dam structures, this study did not include dam classification in terms of dam hazard consequence category in accordance with CDA standards. For the DSI, it was assumed that the hazard potential classification would be low. However, it is recommended that the structure be classified in accordance with CDA hazard classification procedures, outlined in Table 3.3. The hazard classification procedure should include a dam breach assessment and an evaluation of the potential downstream losses in terms of human life, environment, and/or cultural/heritage losses.



Table 3.3 CDA Dam Consequence Classifications

	Demulation of	Incremental Losses								
Dam Class	Population at Risk ⁽¹⁾	Loss of Environmental and Cultural Values		Infrastructure and Economics						
			Minimal short-term loss	Low economic losses						
Low	None	0	No long-term loss	Area contains limited infrastructure or services						
			No significant loss or deterioration of fish or wildlife habitat	Losses to recreational facilities,						
Significant	Temporary only	Unspecified	Loss of marginal habitat only	seasonal workplaces, and infrequently used						
			Restoration or compensation in kind highly possible	transportation routes						
High	Permanent	10 or fewer	Significant loss or deterioration of important fish or wildlife habitat	High economic losses affecting infrastructure, public						
9			Restoration or compensation in kind highly possible	transportation, and commercial facilities						
Mama Hisab	Damasan	100 or fewer	Significant loss or deterioration of critical fish or wildlife habitat	Very high economic losses affecting important infrastructure or services (e.g.						
Very High	Permanent	100 or lewer	Restoration or compensation in kind possible but impractical	highway, industrial facility, storage facilities for dangerous substances)						
		More than	Major loss of critical fish or wildlife habitat	Extreme losses affecting critical infrastructure or services (e.g. hospital, major						
Extreme	Permanent	100	Restoration or compensation in kind impossible	industrial complex, major storage facilities for dangerous substances)						

Note 1. Definition for population at risk:

None - There is no identifiable population at risk, so there is no possibility of loss of life other than through unforeseeable misadventure.

Temporary - People are only temporary in the dam-breach inundation zone (e.g. seasonal cottage use, passing through on transportation routes, participating in recreational activities).

Permanent - The population at risk is ordinarily located in the dam-breach inundation zone (e.g. as permanent resident); three consequence classes (high, very high, extreme) are proposed to allow for more detailed estimate of potential loss life (to assist in decision-making if the appropriate analysis is carried out).

Note 2. Definition for loss of life:

Unspecified - The appropriate level of safety required at a dam where people are temporarily at risk depends on the number of people, the exposure time, the nature of their activity, and other conditions. A higher class could be appropriate, depending on the requirements. However, the design flood requirement, for example, might not be higher if the temporary population is not likely to be present during the flood season.



3.1.3 Operations, Maintenance, and Surveillance

Stantec prepared an Operation, Maintenance, and Surveillance (OMS) Manual for the TSCA in 2019. The OMS was developed under the assumption that the TSCA would be operated similar to a landform structure. The OMS should be updated any time there is a change in the status, classification, condition, or operation of the TSCA (Stantec, 2020c).

The OMS Manual specifies that TSCA surveillance will be carried out through bi-annual inspections by a qualified geotechnical engineer registered in NT. As part of the inspections, instrumentation monitoring shall be performed.

Bi-annual inspections are to be performed for the first five years after capping construction and following extreme weather events. The inspections are to be conducted in a similar manner as a dam safety inspection (DSI), in accordance with CDA guidelines. Bi-annual inspections are to focus on visual observations to detect any deficiencies in the TSCA performance. After satisfactory TSCA performance is documented during the first five years, inspections may be carried out at a lesser frequency, as specified in the OMS Manual.

Trigger levels and potential action plans for response to surveillance observations were presented in the GLG Long-Term Monitoring Plan (Stantec, 2018c) and the OMS Manual (Stantec, 2020c).

Triggers for corrective actions include the following:

- Differential settlement greater than 0.5 m (including instrumentation casings).
- Slopes slumping with horizontal cracking/movement greater than 0.3 m.
- Slopes or cover erosion resulting in a loss of material thickness greater than 0.25%.
- Frost heave effects greater than 0.2 m.
- Vegetation (primarily tree species) growth that may develop roots deeper than 0.3 m.
- Animal activities, such as burrowing, at depths greater than 0.3 m.
- Erosion control coco-matting (full semi-circle, approximate length of 5 m) deemed to be no longer effective.
- Ditch erosion exposes the bituminous geomembrane (BGM) liner (i.e., visible liner).
- Ditch blockage of debris/objects impeding flow or causing ponding.

These scenarios constitute a trigger for follow-up actions, and review and/or modification of the remedial/reclamation approach will be required.

During the development of the OMS Manual and the TSCA Surveillance section, it was also recommended that trigger criteria be established with regard to the piezometric levels. In earlier stages, it



was assumed that the trigger levels should be established at 296.0 m at all piezometers, or as an average value across the TSCA, based on previous slope stability analyses.

4.0 VISUAL INSPECTIONS

Visual inspection of the Camlaren TSCA was completed on July 16, 2024, by Stantec's Steve Bundrock, P.Eng. and Steffen Karl, P.Eng.

The visual inspections were performed on foot and aerially via helicopter. No subsurface investigations, material sampling, or testing was performed. The intent of the inspections was to visually identify dam safety concerns, potential signs of distress in the structures (such as cracking, settlement, slumping, heave, erosion, or significant seepage), and to compare 2024 observations with historical records to evaluate for potential changes related to the condition of the structure.

Field observations at the Camlaren TSCA were recorded on the DSI checklists and in photos provided in Appendix A. Photographs were taken to record key observations and the general conditions of the TSCA. The following subsections summarize key observations made during the inspection of the Camlaren TSCA.

4.1 CAMLAREN TSCA INSPECTION

Observations from the Camlaren TSCA DSI are presented are summarized below.

- In general, the Camlaren TSCA facility was in good condition with no significant signs of slumping, cracking, heave, significant erosion, or other distress.
- The condition of the dam was consistent with that documented in the 2023 DSI (AECOM, 2024), with the exception that a historical, partially healed crack appeared to be fully healed, and a surface crack zone adjacent to a historical depression appeared to be partially healed.
- No known, notable maintenance activities were completed at the Camlaren TSCA facility in 2023 or 2024.
- Toe drains on the north and southeast corner of the facility were dry; no seepage was observed
 at the time of inspection and it was noted that there was no accumulation of fine material in or
 downstream of the toe drains.
- Perimeter ditches were clear with no blockages and limited vegetation growth.
- The northern ditch was dry while the southern ditch had standing water in localized sections due to an inconsistent ditch invert.
- The exposed geofabric/liner identified previously at the west ditch appeared to be mostly selfhealed with limited visible exposure in 2024.
- A surface depression was observed at the top of the TSCA near the northern perimeter, estimated to be 0.3 m deep and 12 m long (east to west) X 5 m wide (north to south). When compared to visible conditions in photos collected in 2020, surficial cracking adjacent to the depression was partially healed in 2024. Two smaller depressions approximately 0.15 m deep



- were observed in the vicinity of the larger surface depression. These depressions were initially observed in 2020 and do not appear to be increasing in size, depth, surficial extent, or number.
- The partially healed cracking identified in the April 5, 2024, Inspection Report (AECOM, 2024)
 was not observed and is assumed to be fully healed.
- Minor, historical erosion of the crest and slopes was evident in multiple locations. It was noted
 that material placed with the intent of erosion control, such as trees and coir logs, were redirecting surficial runoff and causing channelized flow and minor erosion. Some of the historical,
 deeper erosional gullies appeared to be partially healed.
- Erosion protection consisting of coarse sand with cobbles and covered with coco mats in a semicircular arrangement was noted to be functioning adequately. However, some anchors were removed as a result of strong winds impacting the south and east slopes of the facility.
- Vegetation consisting of grasses and shrubs continued to establish in some areas of the crest
 and slopes. Compared to historical observations, most of the observed growth occurred on the
 north, east, and south sides of the facility where willow live staking was completed. It was
 estimated that a third of the willows that were live staked were showing signs of growth.
- Numerous animal burrows, historical and fresh, were observed at the facility. Many of these
 animal burrows were observed in the sand to the west of the west perimeter ditch and are not
 currently impacting the facility; however, the number of burrowing animals onsite may increase if
 left unmanaged, which could result in burrows at locations with increased impacts. The start of a
 potential fox den was observed near the east crest of the facility.
- Instrumentation appeared to be in good condition at the time of inspection. Installation details are included in the geotechnical investigation report (Stantec, 2020a) and Section 5.0.

4.2 GROUND SETTLEMENT

During the 2024 inspection, a surface depression up to 0.3 m deep, 12 m long (east to west), and 5 m wide (north to south) was observed at the top of cover of the TSCA near the northern perimeter. Two smaller depressions, roughly 0.15 m deep, were observed near this larger feature and near the location of VB2 in 2024. These features were initially observed in 2019 and there appeared to be no change in the dimension or depth in 2024. Surficial cracking in the vicinity of the ground depressions appeared to be partially healed in 2024.

The depressions could be caused by settlement related to the consolidation of tailings or as a result of ice melt within waste rock, presumed to be placed in 2018. As described in the design basis report (Stantec, 2018a), this type of settlement was anticipated. The identified settlement was not deep enough to prompt the trigger level identified in the OMS Manual.

Areas of settlement should continue to be monitored in bi-annual inspections.

No settlement was observed at perimeter slopes adjacent to the toe drain during the inspection.



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4.3 EROSION

Historical erosion was observed at the top of TSCA cover and on perimeter slopes, including the following:

- Historical erosion channels on the northern slope near MW3. These channels were eroded through the coco-matting.
- Historical erosion channels on the northwest slope, generally 130 mm deep. Since the cover thickness in the area is 300 mm, the noted erosion triggered the LTM adaptive management requirements as per Table B-2 of the LTM Plan (i.e., slopes or cover erosion resulting in >25% loss of material thickness) (Stantec, 2018c).
- Multiple historical erosion channels on the western slope, generally 120 mm deep. Since the
 cover thickness in the area is 200 to 300 mm, the noted erosion triggered the LTM adaptive
 management requirements as per Table B-2 of the LTM Plan (i.e., slopes or cover erosion
 resulting in >25% loss of material thickness) (Stantec, 2018c).
- The liner was historically exposed in two locations on the western slope. An area approximately 200 cm by 600 cm was exposed in both cases. The eroded cover in this area was 50 to 100 mm thick. This erosion triggered the LTM adaptive management requirements as per Table B-2 of the LTM Plan (i.e., slopes or cover erosion >25% loss of material thickness) (Stantec, 2018).

In addition, it was noted in 2024 that some of the coco-matting anchors were pulled out of the ground at some locations due to wind, particularly on the south and east slopes of the TSCA facility. Vegetation was observed to be establishing slowly as a result of willow live staking efforts, primarily on the north, east, and south sides of the facility. It was estimated that a third of the willows that were live staked showed signs of growth in 2024.

Observations collected in 2024 indicated that the historical erosion channels noted above appeared to be partially healed and that surficial erosion observed in 2024 was minor.

4.4 COVER THICKNESS INVESTIGATION

In 2020, five shallow test pits were hand-dug with a shovel to investigate the cover thickness at the west and northwest embankment, as summarized in Table 4.1.



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Table 4.1 Summary of Test Pits

Test Pit ID	General Location	Test Pit Depth (mm)	Confirmed BGM Liner
TP1	NW, mid-slope	400	Yes
TP2	NW, mid-slope	230	Yes
TP3	W, mid-slope, near	110	Yes
TP4	N, mid-slope	600	No
TP5	W, mid-slope	250	Yes
TP6	W, mid-slope	170 to 220	Yes

Test pit results indicated that the cover material in some areas along the west and northwest slopes did not meet the 0.5 m depth specification. This was previously documented in the As-Built report, and recommendations were made to place additional cover material based on the thickness determined by survey results (Stantec, 2018b).

As described in Section 4.3, historical erosion channels were observed, indicating that erosion has further reduced the thickness of the cover in some areas. Several factors may be contributing to accelerated erosion, including the use of sandy cover materials, steep slopes, and ineffective revegetation efforts. Based on the triggers identified in Section 4.3, it is recommended that additional fill be placed on the west and northwest slopes.

Special erosion control may be required to control erosion in these areas (e.g. geosynthetic solutions). Alternatively, the west slope could be flattened by filling the ditch and moving the existing ditch alignment further to the west\ or converting to a "French drain" type. A preliminary trade-off study may be required to evaluate these options with regard to long-term performance and economic feasibility.

4.5 ANIMAL BURROWS

In 2024, a burrow was observed on the cover surface of the TSCA near the east crest of the facility. In addition, numerous fresh burrows were noted in 2024 in the sand to the west of the west perimeter ditch, located outside of the TSCA footprint. These burrows did not extend deeper than 0.5 m and the BGM liner appeared to be intact. Although these burrows did not trigger the LTM adaptive management as per the LTM Plan, they should be filled in with granular material. Monitoring of animal activity should be performed in subsequent LTM/DSI inspections.



4.6 DITCHES

Perimeter ditches appeared to be performing well with no significant erosion or sediment accumulation noted in 2024. Historical exposure of the liner at the west ditch appeared to be partially healed with limited exposure in 2024. Although partially healed, historical exposure of the BGM liner triggers the LTM adaptive management as per the LTM Plan.

At the time of inspection, there was standing water in localized sections of the southern ditch due to an undulating ditch invert. Similar observations have been made in previous LTM/DSI inspections. It is recommended to continue monitoring the extent at which water pools in the ditches; if the situation worsens, it is recommended to fill the depressions with low permeability soil and to place a piece of BGM liner over the top and to seal it to the underlying BGM around the edges.

5.0 INSTRUMENTATION

Instrumentation at the Camlaren facility was installed in September 2018 and included two (2) thermistors, two (2) standpipe monitoring wells, and three (3) locations for vibrating wire piezometers with double nested sensor tips. Outside of the perimeter of the facility, four (4) standpipes were installed as part of the TSCA perimeter monitoring related to SNP sampling. A summary of the instrumentation is presented in Table 5.1 and locations are depicted on Drawing 1. Installation details for the instrumentation are provided in the OMS Manual (Stantec, 2020c).



Table 5.1 Instrumentation Summary

ID	Type of Installation	Northing	Easting	Ground Surface Elevation (m)	Borehole Depth (m)
MW1	Monitoring Well	6986005	388356	298.73	5.3
MW2	Monitoring Well	6986051	388352	298.96	7.1
MW3*	Monitoring Well	6986073	388393	292.41	7.2
MW4*	Monitoring Well	6985962	388376	294.52	3.8
MW5*	Monitoring Well	6985922	388236	296.58	4.8
MW6*	Monitoring Well	6986066	388238	295.45	5.4
VB1	Vibrating Wire Piezometer	6985957	388335	298.11	6.4
VB2	Vibrating Wire Piezometer	6986026	388381	297.99	6.1
VB3	Vibrating Wire Piezometer	6986079	388353	298.48	7.0
VT1	Thermistor String	6986005	388351	298.89	5.9
VT2	Thermistor String	6986055	388352	298.84	7.0

^{*}Indicates a monitoring well located outside of the TSCA footprint

Data from the thermistors and VWPs were downloaded by K'alo-Stantec personnel on August 20, 2024.

5.1.1 Vibrating Wire Piezometers

Figures 5.1, 5.2, and 5.3 depict the piezometer readings in terms of total head for each VWP at three locations (VB1, VB2, and VB3, respectively) for the period ranging from September 14, 2018, to August 20, 2024. At these three locations, the top piezometer tip measures pore pressures in the tailings while the bottom tip measures pore pressures at the bottom of the borehole, near the contact with bedrock or native ground. Barometric adjustments were not applied to the data due to a lack of barometric readings. In general, the top and bottom piezometers indicated correlating trends throughout this period.



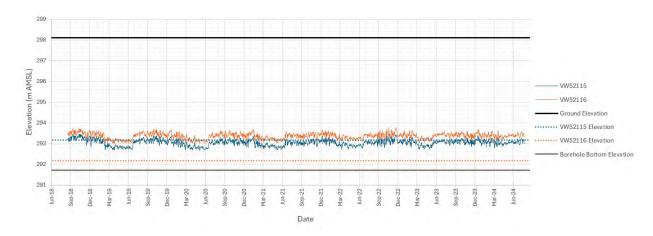


Figure 5.1 Total Head Elevation at Piezometer VB1

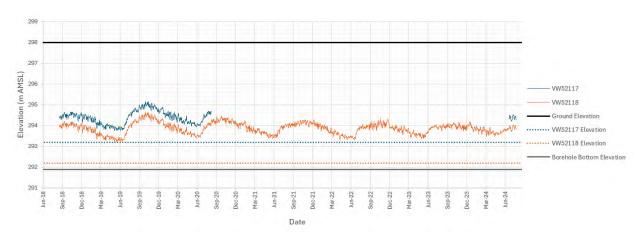


Figure 5.2 Total Head Elevation at Piezometer VB2

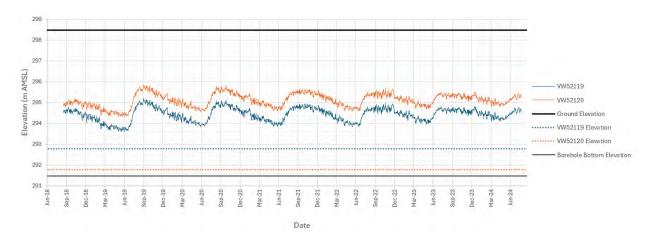




Figure 5.3 Total Head Elevation at Piezometer VB3

A review of the piezometric data for six (6) full seasons indicated that the piezometric levels are cyclic over a 12-month period. Piezometric levels were lowest in the spring or early summer (approximately May to June). During the summer and early fall, piezometric levels began to rise and reach seasonal highs in October or November. From their peak, piezometric levels gradually decreased until May or June, at which point the cycle started over.

When compared to plots presented in the Year 2 to Year 5 LTM Reports, total head values measured in 2024 correlated well with historical readings, though slight differences were observed in the Year 2 to Year 4 plots when compared to the Year 6 plot. Additional context for the suspected cause of this inconsistency can be reviewed in the LTM Year 5 Report (AECOM, 2024).

At VB2, an apparent downward vertical gradient was observed based on the total head difference between the top and bottom piezometer tips. The difference in the total head measured was relatively constant (i.e. two piezometric lines are parallel). Data did not record at VB2's top piezometer tip from September 2020 to July 2024 but has been resolved.

At VB1 and VB3, an apparent upward vertical gradient was observed. Similar to readings collected at VB1, the difference in total head measured by the two piezometers at VB1 and VB3 were relatively consistent. Downward vertical gradients could cause contaminant transport from the TSCA to the underlying groundwater regime.

5.1.2 Thermistors

Figures 5.4 and 5.5 show the monthly average temperature profiles as measured by thermistors from September 2023 to September 2024 for the TSCA mine waste at VT1 and VT2, respectively. Thermistor plots predating September 2023 can be reviewed in the Year 1 to Year 5 LTM Reports.



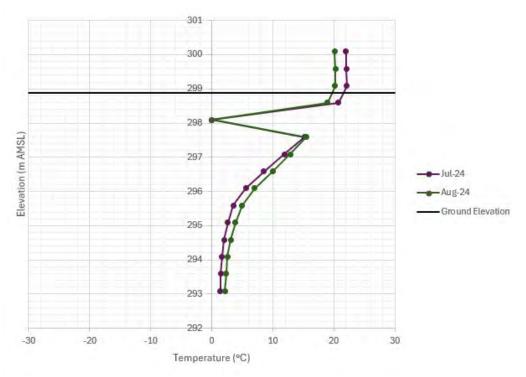


Figure 5.4 VT1 Year 5 to Year 6 Monthly Average Temperature Profiles

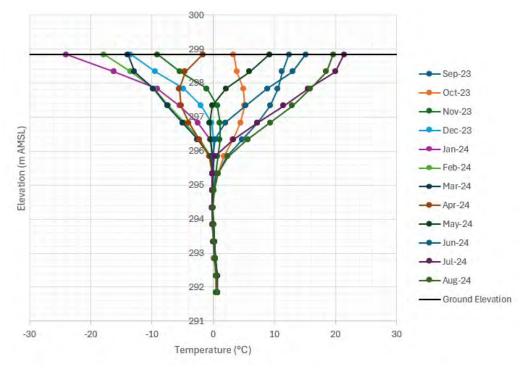


Figure 5.5 VT2 Year 5 to Year 6 Monthly Average Temperature Profiles



Thermistor VT1 had missing data from September 2022 to August 2024. This instrument has since been repaired, though node five appeared to be malfunctioning.

Temperature data downloaded from VT2 indicated a range of temperatures at surface level, ranging from approximately -25°C during the winter months and 22°C during the summer months. At VT1, a similar summer temperature of 22°C was recorded. Since the top node was located at/near ground level, these temperatures correlate closely with ambient air temperatures. Temperatures fluctuated seasonally. At depth, the active permafrost zone appeared to extend to approximately 4 m deep at VT2. At VT1, temperatures remained above 1.4°C, indicating thawed ground throughout the profile. Based on historical data, temperatures remaining above 1.4°C, and comparing these results to VT2, it appears that the data at VT1 is erroneous and requires further assessment.

6.0 DEFICIENCIES, NON-CONFORMANCES, AND RECOMMENDED ACTIONS

This section presents a summary of the dam safety deficiencies, non-conformances, and recommended actions identified for the Camlaren TSCA facility as a part of the 2024 DSI. It also includes a compilation and review of existing dam safety deficiencies identified as part of the Year 1 to Year 5 LTM inspections.

To assist CIRNAC in prioritizing the importance of each deficiency as well as prioritizing actions and resourcing to implement follow-up actions, the deficiencies and non-conformances have been ranked using the three-level priority system presented in Table 6.1. Priorities were assigned based on the work performed by others and have not been categorized previously.

Table 6.1 Dam Safety Deficiencies Priority System

Priority	Description
1.	A dam safety deficiency considered immediately hazardous to life, the environment, or infrastructure and/or significant non-compliance with CDA guidelines.
2.	A dam safety deficiency that could lead to injury or impacts to the environment or infrastructure.
3.	Non-compliance with CDA guidelines that is not anticipated to impact health or the environment but does not comply with best practice.

6.1 NEW DAM SAFETY DEFICIENCIES IDENTIFIED DURING THE 2024 DSI

Two new dam safety deficiencies were identified during the 2024 DSI. These deficiencies included observation of fresh animal burrows and fresh, minor erosion. It is recommended that animal burrows are backfilled with granular material with continued monitoring for animal activity in subsequent DSIs. Minor erosion is recommended to be monitored for worsening conditions with consideration to implement a more permanent solution, such as flattening embankment slopes, providing additional coarse material, or removing material that contributes to channelized flow.



6.2 REVIEW OF EXISTING DAM SAFETY DEFICIENCIES AND NON-CONFORMANCES

Table 6.2 and Table 6.3 presents a summary of the existing dam safety deficiencies and non-conformances, respectively, first identified as part of the Year 1 LTM program (Stantec, 2020e) for the Camlaren TSCA. These tables were compiled based on the first five years of the LTM program reports and priorities were assigned based on the work completed by others. The tables describe the status of each deficiency and updates for each deficiency based on the results of the Year 6, 2024 DSI.



Table 6.2 Existing Dam Safety Deficiencies

No. ⁽¹⁾	LTM Year	Priority Level ⁽²⁾	Status	Description of Deficiency	Recommended Action and Comment	2024 DSI Comment
DS-1	1 (2019)	3	Completed	Two animal burrows were identified on the south and southeast slope of the TSCA. Animal burrows had a depth of 0.4 m.	Backfill animal burrows and continue to monitor for animal activity.	Animal burrows were backfilled by hand on July 8, 2019.
DS-2	1 (2019)	2	Mostly Completed/Ongoing	Damaged wires related to animal activity were noted at VT1.	Repair wiring to restore functionality of instrument.	Repair was completed by DNV in September 2019. In the Year 2 (2020) inspection, it was noted that the wiring had been reversed and required further attention. Based on the plots generated for 2024, it appeared that additional repairs are required at VT1 since temperatures remained above 1.4°C through permafrost.
DS-3	1 (2019), 2 (2020), 6 (2024)	2	Ongoing	Three depressions, up to 0.3 m deep, were observed at the top of the TSCA cover near the north perimeter.	Continue to monitor these features.	These features were not recorded in Year 2 to Year 5 but were observed in 2024 and appeared to be similar in shape, size, and geometry when compared to 2019 observations.
DS-4	1 (2019)	2	Completed	Cracking observed at the top of the cover near the north perimeter – appeared to be related to the localized depression.	Continue to monitor cracking in subsequent DSIs.	Cracking was presumed to be partially healed based on Camlaren Mine Tailings Soil Containment Area Geotechnical Inspection Report (AECOM, 2024). Partially healed cracks were not noted in Year 6 DSI and are assumed to be fully healed.
DS-5	1 (2019), 2 (2020), 3 (2021), 6 (2024)	2	Ongoing	Erosion noted on the north and northwest slopes of the TSCA facility. Fine material appeared to be washed out, leaving coarse material.	Continue to monitor this erosion and repair if needed.	Minor surface erosion observed in 2024. Some of the historical, deeper erosional gullies appeared to be partially healed. Continue to monitor erosion and consider implementing a more permanent solution, such as flattening embankment slopes, placing coarse material, or removing materials that channel flows.
DS-6	2 (2020)	3	Mostly Completed/Ongoing	Animal burrows were noted on the southwest slope and northeast embankment.	Backfill animal burrows with granular material. Monitor animal activity in subsequent site inspections.	Fresh (and existing) animal burrows were observed in 2024. Continue to monitor animal activity in subsequent site inspections and backfill animal burrows with granular material.



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DS-7	2 (2020), 3 (2021)	2	Ongoing	Slow vegetation growth and loose cocomats was noted.	Refasten coco-mats, consider alternatives for erosion control or vegetation establishment. Coco-mats should be inspected for degradation or displacement on an annual basis, or, until it has been established that embankment erosion has ceased.	Erosion protection consisting of coarse sand with cobbles, covered with coco-matting in a semi-circular arrangement, appeared to be functioning adequately. Some anchors were removed as a result of strong winds impacting the south and east slopes of the facility. Consider repairing coco-matting and adding anchors. Vegetation consisting of grasses and shrubs continued to establish in some areas of the crest and slopes. It was estimated that a third of the willows that were live staked were showing signs of growth.
DS-8	2 (2020)	2	Ongoing	Possible long-term settlement observed.	Resurvey entire covered area if settlement persists.	Continue monitoring and consider establishing an InSAR radar system for remote deformation monitoring.
DS-9	2 (2020)	3	Ongoing	Thermistor wires at VT1 were switched.	Correct VT1 thermistor wiring.	Issues appeared to persist at VT1 – see Section 5.1.2 for additional context. Consider repairing thermistor VT1.
DS-10	2 (2020), 3 (2021)	3	Completed	A blockage was noted at MW1.	Remove the blockage in MW1.	No blockage was present in 2024. Issue resolved.
DS-11	1 (2019), 2 (2020)	3	Ongoing	Undulating invert of the south ditch was observed.	Repair undulating ditch bottom. Fill in depressions.	Continue to monitor ditches for standing water.
DS-12	1 (2019), 2 (2020)	2	Completed	Exposed liner at the west ditch was observed.	Provide additional riprap at the west ditch. Fill in depressions and patch the liner over the filled area.	The exposed liner at the west ditch appeared to be partially healed with limited exposure in 2024. Issue resolved.
DS-13	2 (2020)	3	Completed	Instrumentation was noted to lack protection from potential wildlife interference.	Install wooden boxes with cover over the instrumentation.	Limited wildlife on the island. Instrumentation is functioning well without protection. Issue resolved.
DS-14	2 (2020)	2	Ongoing	Insufficient piezometers were noted at critical areas.	Install additional piezometers in critical areas to assess for slope stability in the north and to better quantify the phreatic surface within the TSCA.	Ongoing – Install additional piezometers as recommended in previous DSIs/LTM Reports.

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DS-15	3 (2021)	2	Completed	At the toe of the south embankment, and from Station 0+320 to 0+335, the toe of the slope intersected slightly within the south perimeter ditch resulting in minor undercutting of the embankment.	Remove the over-steepened portion of the existing soil liner material at this location and replace with riprap material similar to the riprap used to line the existing south ditch.	Not observed in 2024.
DS-16	5 (2023)	3	Ongoing	Aluminum debris pile noted to the north of the TSCA.	Monitor this area for observed changes in the Year 6 monitoring program.	The area was not inspected in 2024. Visually inspect the area in 2025 and remove material if present.
DS-17	5 (2023)	2	Ongoing	Thermistor VT1 did not collect data after September 18, 2022.	Inspect this sensor and repair/replace if further monitoring is required.	Issues appeared to persist at VT1 – see Section 5.1.2 for additional context. Consider repairing thermistor VT1.
DS-18	5 (2023)	3	Completed	VB2 data collection was disrupted and data had not collected after September 4, 2020.	Repair or replace during Phase II long-term monitoring.	Issue resolved. Data collection resumed in July 2024.
DS-19	5 (2023)	3	Ongoing	MW2 was blocked.	Inspect the assumed blockage at MW2 with a portable borehole camera in Year 6.	Blockage could not be observed from the surface. Inspect in 2025 and remove the blockage if issue persists.
DS-20	5 (2023)	3	Completed	Data loggers were full or close to full.	Clear old data from data loggers, replace batteries as needed, and re-deploy at appropriate collection intervals.	Data loggers were cleared. Issue resolved.
DS-21	5 (2023)	2	Ongoing	Stained soil was identified at four separate locations. One of these locations exhibited a slight hydrocarbon odour.	Remove stained soil with a shovel, place in five-gallon pails, and remove from site. Collect confirmatory sample at each location to be analyzed for PHCs and BTEX.	Stained soil was not visible in 2024. Continue to observe for stained soil and if identified, collect samples and lab test.

Notes:

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⁽¹⁾ Table was compiled based on the findings and recommendations identified by others as part of the Year 1 to Year 5 LTM Reports. Findings and recommendations were not presented in a similar format for the Year 1 to Year 5 LTM Reports.

⁽²⁾ Existing priority levels were not specified in the previous LTM reports and/or DSIs. Priority levels were assigned in 2024 based on the work completed by others.

 Table 6.3
 Existing Dam Safety Non-Conformances

No. ⁽¹⁾	LTM Year	Priority Level (2)	Status	Description of Non-Conformance	Recommended Action and Comment	2024 DSI Comment
NC-1	2 (2020)	2	Ongoing	Piezometric trigger levels, instrumentation monitoring	Review piezometric levels plus thermistors bi-annually. More frequent monitoring would provide better interpretation. Establish piezometric trigger levels for the purpose of dam safety and an action plan to mitigate levels if triggers are reached. Update the LTM Plan and OMS Plan accordingly. Automated remote monitoring is also recommended.	Consider implementing recommendations from Year 2 LTM Report.
NC-2	3 (2021)	2	Ongoing		Review as-built drawings completed following 2018 to address minor inconsistencies observed onsite.	Consider implementing recommendations from Year 3 LTM Report.
NC-3	2 (2020), 3 (2021)	2	Ongoing	Dam was not classified in accordance with CDA guidelines.	Classify the dam as per CDA guidelines. Re-evaluate the classification assessment report. Refer to classification report for additional recommendations. Reclassify the current structure from a dam to a mine waste structure. Complete further appropriate review and determination using site-acquired water level monitoring data and additional geotechnical boreholes to determine the strength of the tailings.	Consider implementing recommendations from Year 2 and Year 3 LTM Reports.
NC-4	2 (2020)	3	Ongoing	Quantify the acceptable amount of settlement expected within the first 2-3 years following construction.	Continue bi-annual inspection schedule. The next inspection should be performed after freshet in spring/summer 2021. Special attention should be paid to monitoring settlement of the top cover. Measurements of stick-ups and instrumentation casings should be included in the bi-annual monitoring.	Consider implementing recommendations from Year 2 LTM Report.

Notes:



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⁽¹⁾ Table was compiled based on the non-conformances identified by others as part of the Year 1 to Year 5 LTM Reports. Non-conformances were not presented in a similar format for the Year 1 to Year 5 LTM Reports.

⁽²⁾ Existing priority levels were not specified in the previous LTM reports and/or DSIs. Priority levels were assigned in 2024 based on the work completed by others.

7.0 LIMITATIONS

Professional judgments are presented in this report. These are based partly on the existing information presented in this document, our visual observations during the site visit, and partly on our experience with similar projects. The findings, recommendations, professional opinions, and conclusions that are presented, are within the limits prescribed by available information at the time the assessment discussed in this document was prepared in accordance with generally accepted professional engineering practice. K'alo-Stantec's services were performed with the usual thoroughness and competence of the engineering profession. No other representation, expressed or implied, is included or intended in our proposals, contracts, or reports.

The conclusions in this report are limited in terms of accuracy to the time, scope, and purpose for which the report was prepared and do not necessarily represent the conditions at any other time. Unless expressly stated otherwise, assumptions, data, and information supplied by, or gathered from other sources upon which K'alo-Stantec opinion as set out herein is based, has not been verified by K'alo-Stantec and K'alo-Stantec makes no representation as to its accuracy and disclaims all liability with respect thereto.

This document is meant to be read as a whole, and sections or parts thereof should thus not be read or relied upon out of context. K'alo-Stantec disclaims any liability to any third party in respect of any reliance on this document by any third party without the prior written consent of K'alo-Stantec.

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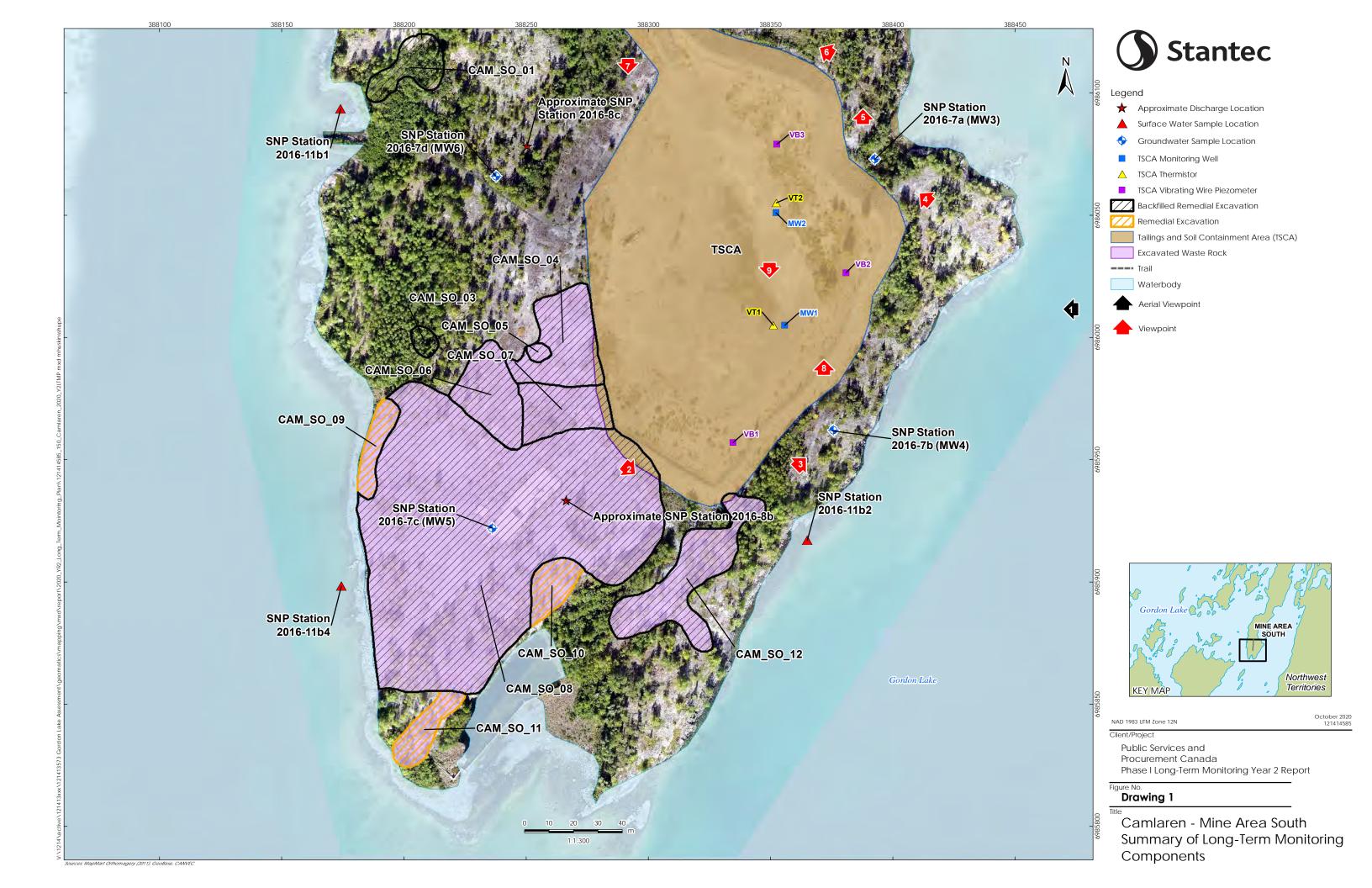
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Drawings

TSCA Summary of Monitoring Components



APPENDIX A



July 31, 2024 Camlaren TSCA

Inspection Details				
TSCA Safety Inspector(s)	Steve Bu	ındrock, P.Eng., Steffen K	arl, P.Eng.	
Inspection Timing	Date	16 July 2024	Time	11:00AM
Weather (precip/temp/sun)	Partly Cloudy, 20-26°C			
Weather preceding Inspection	ing Inspection Partly Cloudy, 20-26			
Previous Dam Safety Inspection	Date	29 September 2023 (by Others)	HPC (CDA)	Assumed to be low
Next Dam Safety Inspection	Schedule	ed for 2025.		'

Basic Information			
TSCA Purpose Final storage for mine waste collected from the Gordon Lake Group of Sites contained in this engineered facility – Tailings and Soil Containment Area (T			
Owner	CIRNAC		
Catchment Area	TSCA area only, 2.5 ha	Nominal Berms Height	5 m
Pond Area	N/A	Nominal Length	200 m
Berm Crest Elevation	297.5 m	Nominal Width	150 m
TSCA Peak Elevation	300.6 m	Berms Slopes	3:1
Water level during visit	N/A	TSCA Slope	4%1
Berm Composition Sand fill dam with		posite cover.	
Composite BGM Cover	BGM liner placed on sand bedding and covered with 0.5 to 0.6 m of sand cover.		
Discharge Facilities	Perimeter ditches, northern	and southern.	

Berm Crests	
Cracking	None observed. The partially healed cracking identified in the April 5, 2024, Camlaren Mine Tailings Soil Containment Area Geotechnical Inspection report (AECOM 2024), was not encountered during the 2024 review and is assumed to be fully healed.
Deviation of Alignment	None.
Narrowing of crest width	None.
Sinkholes / Potholes / Rutting	Past minor surface erosion of crest and slope evident in multiple locations, in some cases where water is channeled by the trees and coir logs placed for erosion control. All evidence of past erosion is minor with no significant erosion concerns identified anywhere on structure.
Low Areas	None.
Vegetation	Vegetation consisting of grasses and shrubs growing in some areas of crest and slope of the berm. The majority of this growth is on the north, east, and south sides where willow live-staking was completed. Only some of the willows survived with less than a third of willow plants showing growth.



July 31, 2024 Camlaren TSCA

2024 TSCA Safety Inspection Checklist

Animal burrows	One start of a partial den (potentially fox) was observed on the surface of the TSCA near the east crest. Burrow was not dug deeper than approximately 0.5
	m.

TSCA Top Surface	
Erosion Protection	Sand cover and willow branches to control erosion and promote vegetation.
Depressions, sinkholes	A surface depression was observed approximately 0.3 m deep at the TSCA top near the northern perimeter. The size is approximately 12 m E-W and 5 m N-S. 10 m W of MW#2. The surface crack zone consisting of several cracks adjacent to the depression area was partially healed. This depression was not noted in AECOM 2024 but looks similar to that identified in the 2020 site review. Recommendations: backfill the depression zone with granular material up to surround level.
	Two (2) small depressions (new) near VB#2, approximately 0.15 m.
Excess vegetation	None.
Animal burrows	One start of a partial den (potentially fox) was observed on the surface of the TSCA near the east crest. Burrow was not dug deeper than 0.5 m.
Rubbish/Driftwood	None.

Downstream Slopes (all around TSCA	Downstream Slopes (all around TSCA)				
Erosion Protection (quality, evidence of erosion)	Coarse sand with cobble size stones covered with coco mats placed in semi-circles to mitigate potential erosion. Willow live-staking was performed to encourage vegetation of slope. Evidence of minor surfaction erosion observed, however, no severe erosion concerns identified anywhere. Previous deeper erosion channels appear to be partially healed.				
	Coco matting wind-blown with anchors pulled out at some locations, especially south and east slope.				
Uniform Slope/Evidence of Slides	Slopes smooth and regular. No evidence of slides.				
Vegetation (hydrophilic, excessive)	Some willow and grasses growing sporadically.				
Animal burrows	None observed on slopes.				

Downstream Toes			
Toe Submerged	No.		
Soft Toe	No.		
Boils or concentrated seeps	None.		
Seepage areas (seepage clear?)	No seepage observed in the downstream of toe drain.		
Staining	No.		
Vegetation (hydrophilic, excessive)	No.		

Perimeter Ditches



July 31, 2024 Camlaren TSCA

2024 TSCA Safety Inspection Checklist

Control Mechanism	None.
Flow During Inspection	Inactive.
Material	Rockfill riprap.
Seepage into ditches	None.
Cracks	None observed. Exposed geofabric/liner previously identified appeared to be mostly self healed with limited to no current exposure.
Erosion / Spalling	None.
Staining	None.
Blockages	Standing water in the South Ditch, due to uneven bottom.
Energy Dissipation	No issue observed.
Animal Borrows	A number of animal borrows (potentially fox) were observed in the sand to the west of the west perimeter ditch. No impact to the ditch or toe.

Monitoring and Instrumentation

Monitoring wells and instrumentation including vibrating wire piezometers and thermistors installed throughout the site. Active monitoring occurring during site visit but some software communication issues encountered.

Other	
Wildlife (beavers, etc)	None.
Public Access	None.
Additional Notes	Review of instrumentation data is recommended in light of the long-term performance.



July 31, 2024 Camlaren TSCA



Photo 1: Camlaren TSCA from the air.



July 31, 2024 Camlaren TSCA



Photo 2: Camlaren TSCA from the air.



July 31, 2024 Camlaren TSCA



Photo 3: Animal borrows to the west of west drainage ditch.



July 31, 2024 Camlaren TSCA

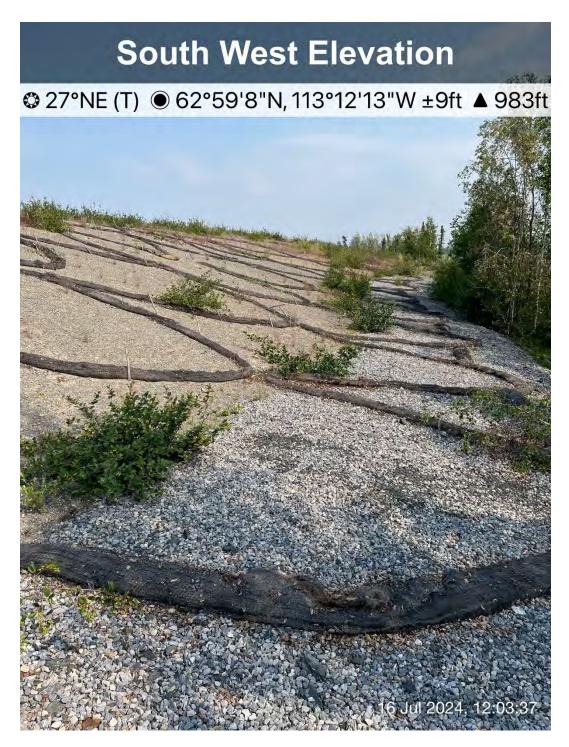


Photo 4: East slope – Sporadic willows growing.



July 31, 2024 Camlaren TSCA



Photo 5: Southeast perimeter ditch.



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Photo 6: Southwest perimeter ditch and slope.



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2024 TSCA Safety Inspection Checklist

North West Elevation

© 114°SE (T) ● 62°59'10"N, 113°12'19"W ±9ft ▲ 985ft



Photo 7: South perimeter ditch and slope.



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Photo 8: TSCA north slope with partially healed erosion channels – looking toward perimeter ditch.



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Photo 9: Willow branches cover the top of the TSCA to mitigate potential erosion – partially healed erosion channel visible.



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2024 TSCA Safety Inspection Checklist

North East Elevation

© 218°SW (T) ● 62°59'13"N, 113°12'12"W ±9ft ▲ 984ft



Photo 10: Typical instrument installation.



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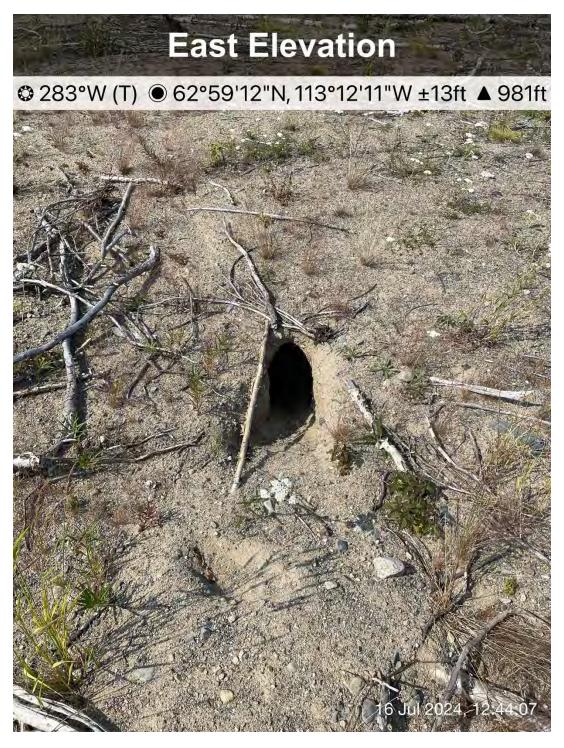


Photo 11: Start of partial animal burrow near east crest of TSCA.



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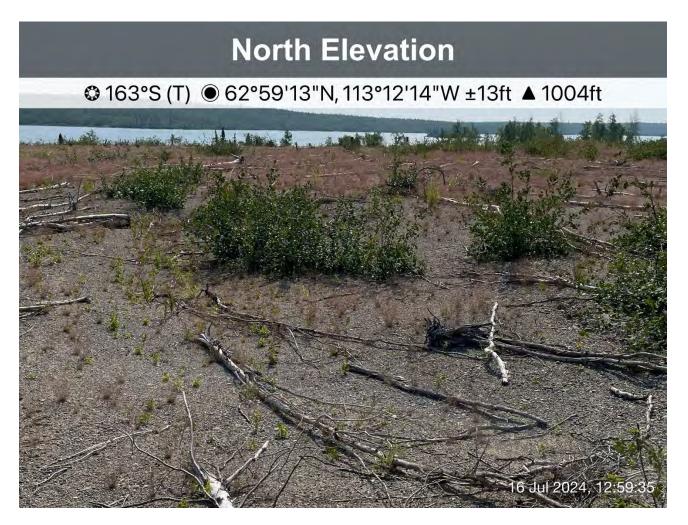


Photo 12: Surface depression near northern perimeter of TSCA.



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Photo 13: TSCA top towards North Perimeter, surface crack zone around depression area – partially healed.



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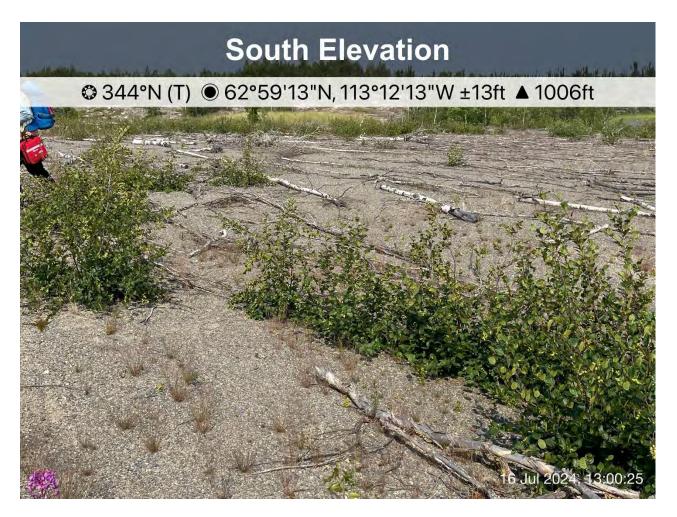


Photo 14: Surface depression near northern perimeter of TSCA.