PEACE RIVER HYDRO PARTNERS

Site C Clean Energy Project Main Civil Works

Acid Rock Drainage and Metal Leachate Management

2024 Final Report

PRHP Document No.

SCCEP-PRHP-ENV-RPT112-000065

BC Hydro Document No.

#

Revision

0

Contract Ref Section.

Schedule 7 [Environmental Obligations]

Date

2025-03-11

PRHP Document No.	**SCCEP-PRHP-ENV-RPT112-000065**	**Rev No.** **0**
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Contract Ref No.	**Schedule 7 [Environmental Obligations]**	

Revision History

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0	IFI	2025-03-11	N	Issued for Information

The signatures below indicate that this document has been reviewed and accepted and demonstrates that the signatories are aware of all the requirements contained herein and are committed to ensuring their provision.

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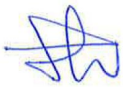
Approved by:	Jay Kim Deputy Project Director		2025-03-11

TABLE OF CONTENTS

APPENDIX A – ARD/ML MANAGEMENT 2024 FINAL REPORT

PEACE RIVER
HYDRO PARTNERS

Site C Clean Energy Project
Acid Rock Drainage
and
Metal Leachate Management
2024 Final Report

Project No. A416-7
March 2025

LORAX
ENVIRONMENTAL

Executive Summary

PEACE RIVER
HYDRO PARTNERS

Executive Summary

This report summarizes the results of acid rock drainage and metal leachate (ARD/ML) monitoring undertaken in 2024 as part of the Main Civil Works Contract for the Site C Clean Energy Project ('the Project'). This report has been prepared for Peace River Hydro Partners (PRHP), which holds the Main Civil Works Contract, by Lorax Environmental Services Ltd. (Lorax), PRHP's Qualified Professional (QP) for ARD/ML.

This report is intended to summarize the results of monitoring undertaken by PRHP to meet the requirements of the ARD/ML Management Plan prepared by BC Hydro for the Project (BC Hydro, 2022a), which is included as Appendix E of the Construction Environmental Management Plan (CEMP; BC Hydro, 2022b). This report has been prepared to address the annual reporting requirements, which are set out in Section 7.5 of the ARD/ML Management Plan. It describes ARD/ML bedrock and water quality monitoring from January 1st to June 30th, 2024 and sample results from sediment pond accumulations through December 2024.

This report summarizes:

- Peace River flow conditions, construction activity, water management, sediment pond discharge rates and data management (Section 1);
- Quantities of bedrock that has been disturbed in the course of construction, including bedrock that has been exposed and excavated and relocated, and also geochemical characteristices of crusher sediment pond and sump dredgate (Section 2);
- Monitoring of surface water quality within the construction site (Section 3);
- A summary of key findings, including, mitigation measures employed, the ML/ARD risk levels, a summary of exceedances of project-specific water quality discharge limits, and metal loads discharged to the Peace River (Section 4); and
- Summary (Section 5).

Surface water quality monitoring for areas outside of PRHP's work areas, and additional monitoring in the Peace River, is undertaken by others on behalf of BC Hydro, and is reported under separate cover.

Excavations and Deposition

The CEMP states that bedrock at the Dam Site has a high potential for ARD and should be managed as potentially acid generating (PAG) or acid generating (AG) material. A total of

11,190 m^3 PAG bedrock was excavated in 2024 from the Approach Channel and Spillway and placed in Area 20-21.

PAG Bedrock and Sediment Pond Monitoring

ARD/ML monitoring is undertaken in areas where bedrock is exposed or where these materials are stored. Due to the completion of RSEM Areas in 2023 and limited bedrock disturbance by PRHP in 2024, no ARD/ML analyses were completed for PAG bedrock in 2024.

Sampling and testing of accumulated sediment from sediment control ponds and sumps was conducted to guide the appropriate disposal of these materials. No contamination was identified in sediment samples collected in 2024 from the sediment ponds in Area 11, Area 13, Area 25 and the Phase 3 Crusher settling pond.

Surface Water Quality Monitoring

Surface water quality sampling was undertaken at a total of 14 stations in 2024, including 1 station on the Left Bank and 13 stations on the Right Bank. The program was effective in identifying trends and documenting discharge water quality.

In addition, instruments and dataloggers were installed and record continuous *in situ* measurements of surface water quality (pH, conductivity, and turbidity) in the RSEM Area L5 and R6 sediment ponds during times that the ponds were managed to discharge. Field measurements of these parameters were also obtained at the RSEM ponds and other locations to provide insight into conditions across the site.

End-of-pipe (EOP) discharge limits from RSEM sediment ponds for pH, TSS, Cd, Co, Cu and Zn are set out in Table 2 in the BC Hydro ARD/ML Management Plan (BC Hydro, 2022a). There were no reported exceedances of EOP discharge limits of RSEM discharges to the Peace River in 2024.

Mitigation

Mitigation measures to limit the effects of ARD/ML include placement of covers on PAG materials, water management to contain water that may be influenced by ARD/ML, and water treatment to neutralize pH and remove total and dissolved metals.

Placement of NPAG covers on PAG exposures was the primary ARD/ML mitigation strategy to limit the exposure of AG material at site during construction. However, in 2024 only minimal amounts of PAG material was managed by PRHP. Placement of the final NPAG cover on exposed PAG material to minimize potential ARD/ML was conducted at RSEM Area R5B, Earthfill Dam, RSEM Area R5A and RSEM Area L5 prior to 2024. In November 2024 the reservoir was filled and the PAG material in the PAG-containing

RSEM areas was flooded, which completed the long-term PAG cover management strategy at the site.

The WTP was operated by PRHP from March 18 to April 6. Subsequent to April 22, 2024, PRHP relinquished responsibility of WTP operation and maintenance to other parties. The implementation of various erosion and sediment control measures at site continued to limit TSS in site waters since the monitoring program was initiated in autumn 2016.

Table of Contents

PEACE RIVER
HYDRO PARTNERS

Table of Contents

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

Acronyms

PEACE RIVER
HYDRO PARTNERS

Acronyms

ABA	Acid-Base Accounting
ACA	Average Crustal Abundance
ACDC	Approach Channel Drainage Channel
AG	Acid Generating
AP	Acid Potential
ARD/ML	Acid Rock Drainage and Metal Leachate
asl	Above Sea Level
BV	Bureau Veritas Laboratories, Burnaby, Canada
CALA	Canadian Association for Laboratory Accreditation
CBE	Charge Balance Error
CCME	Canadian Council of Ministers of the Environment
CEMP	Construction Environmental Management Plan
CoA	Certificate of Analysis
CSR	B.C. Contaminated Sites Regulation
CVC	Conventional Vibrated Concrete
DI	De-ionized Water
DIC	Diversion Inlet Cofferdam
DOC	Diversion Outlet Cofferdam
DQO	Data Quality Objective
DTIP	Diversion Tunnel Inlet Portal
DTOP	Diversion Tunnel Outlet Portal
EOP	End-of-Pipe
FLNRO	B.C. Ministry of Forests, Lands and Natural Resource Operations
IDZ	Initial Dilution Zone
IEM	Independent Environmental Monitor
LBEX	Left Bank Excavation
MDL	Method Detection Limit
MOE	B.C. Ministry of Environment

MWTF	Mobile Water Treatment Facility operated by Ensero
NP	Neutralization Potential
NPAG	Not Potentially Acid Generating
NPR	Net Potential Ratio
PAG	Potentially Acid Generating
PRHP	Peace River Hydro Partners
QA/QC	Quality Assurance / Quality Control
QP	Qualified Professional
RBCD	Right Bank Cofferdam
RBCT	Right Bank Core Trench
RBDT	Right Bank Drainage Tunnel
RCC	Roller Compacted Concrete
RDL	Reported Detection Limit
RPD	Relative Percent Difference
RSEM	Relocated Surplus Excavated Material
SBIAR	South Bank Initial Access Road
SC	Specific Conductance
SWE	Surface Water Equivalent
TPSA	Temporary PAG Stockpile Area
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
WTP	Water Treatment Plant operated by PRHP
WQG	B.C. water quality guideline for the protection of aquatic life

Chemical elements are generally referred to using their one or two letter atomic symbol. Cd denotes cadmium, for example. A T- or D- preceding the symbol denotes the total or dissolved fraction, respectively (D-Cd, for example). Molecules, functional groups, or polyatomic ions may be referred to either by name (*e.g.*, sulphate) or chemical formula (*e.g.,* SO_4).

1. Introduction

PEACE RIVER
HYDRO PARTNERS

1. Introduction

This report summarizes the results of acid rock drainage and metal leaching (ARD/ML) monitoring undertaken in 2024 as part of the Main Civil Works Contract for the Site C Clean Energy Project ('the Project'). This report has been prepared for Peace River Hydro Partners (PRHP) by Lorax Environmental Services Ltd. (Lorax), the Qualified Professional (QP) for Acid Rock Drainage (ARD) for the Main Civil Works Contract.

1.1 Purpose

ARD/ML monitoring is undertaken in accordance with the requirements of the ARD/ML Management Plan for the Project. The ARD/ML Management Plan is documented in Appendix E of BC Hydro's Construction Environmental Management Plan ('CEMP'). At the start of 2022, PRHP was required to follow the ARD/ML monitoring and management requirements specified in ARD Management Plan (Revision 5.2, dated July 26, 2016; BC Hydro, 2016a) and CEMP (Rev. 4, BC Hydro, 2016b). Updates in 2022 to the ARD/ML Management Plan (Revision 6.0, dated January 17, 2022; BC Hydro, 2022a) and CEMP (Rev. 10.1, BC Hydro, 2022b) came into effect for PRHP at the Dam Site as of April 6, 2022.

In addition to the requirements outlined in the CEMP, this report is also intended to address information requirements that PRHP has received from BC Hydro to meet requests from the Independent Environmental Monitor (IEM) and B.C. Ministry of Forests, Lands and Natural Resources (FLNRO) Comptroller of Water Rights.

1.2 Scope and Outline

This report has been prepared to address the annual reporting requirements, which are set out in Section 7.5 of the ARD/ML Management Plan. It describes monitoring activities within the Main Civil Works contract work, as well as analytical results and interpretation, from January 1st to June 30st, 2024.

The ARD/ML monitoring program includes four main components:

- Observations and tests to assess the geochemical characteristics of bedrock that has been disturbed in the course of construction, including bedrock that has been exposed and excavated and relocated (Section 2).
- Monitoring of surface water quality within PRHP work areas (Section 3).

- Compiling and reviewing this information to assess the onset of ARD/ML, the effectiveness of mitigation measures including water treatment, surface water quality exceedances, and metal loads discharged to the Peace River (Section 4).
- Identifying relevant conclusions and recommendations (Section 5).

This report does not include the results of any other monitoring undertaken in the Peace River, or any surface water quality monitoring that is undertaken by PRHP or others for purposes other than ARD/ML management. Other monitoring programs and reporting for the Project are undertaken by PRHP, and by others, on behalf of BC Hydro.

Information on geochemical monitoring is provided in Section 2, and the results of surface water quality monitoring are discussed in Section 3. In addition, this report includes in Section 4:

- A summary of work conducted to mitigate ARD/ML, including water management, an evaluation of water treatment requirements, and a summary of water treatment undertaken (Section 4.1).
- An evaluation of ML/ARD risk levels (Section 4.2).
- A summary of any exceedances of end-of-pipe (EOP) discharge limits in water discharged from PAG-contact RSEM area sediment ponds, and information on any exceedances of applicable B.C. water quality guidelines for the protection of freshwater aquatic life (WQG) at other discharge locations (Section 4.3).
- An estimation of metal loads discharged from the construction site to the Peace River, from all discharge points on both the Left Bank and Right Bank, and a comparison with metal loads carried by the Peace River (Section 4.4).

Section 5 summarizes conclusions related to the geochemical monitoring program (Section 5.1), the water quality monitoring program (Section 5.2), and mitigation (Section 5.3).

1.3 Peace River Flow

The flow in the Peace River determines available assimilative capacity and is managed by BC Hydro primarily in response to energy demand (BC Hydro, 2009). The average daily flow in the Peace River at the Water Survey of Canada Station on the Peace River near Taylor (Station 07FD002) from January through April 2024 is shown in Figure 1-1 below (daily data is not tabulated in this report).

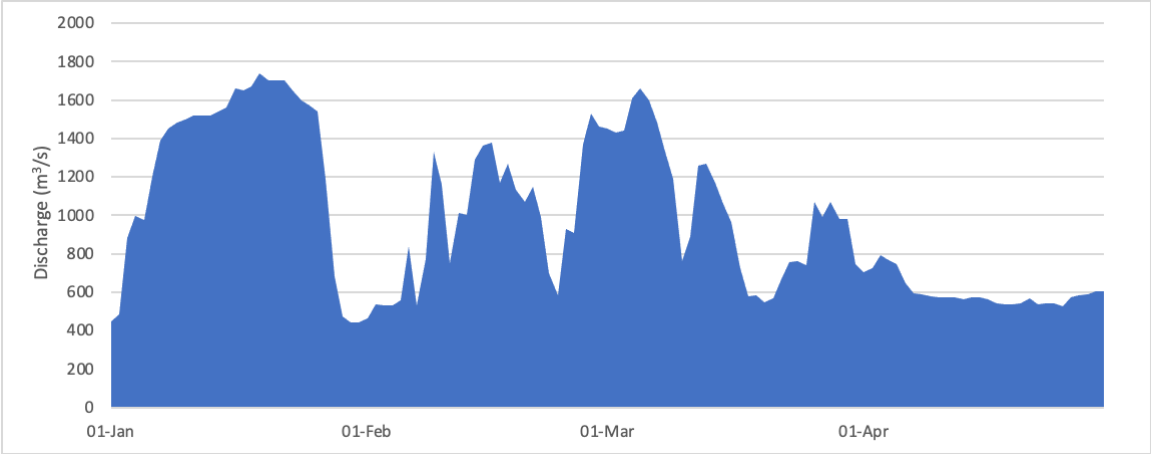


Figure 1-1: Average Daily Flow Rate at Peace RiverJanuary to April 2024 Near Taylor, Station 07FD002 (from Water Survey of Canada, 2024)

The discharge values varied through the first four months of the year. More specifically:

- The flow in the Peace River increased rapidly in early January and peaked at more than 1,600 m^3/s before declining again.
- Flows were highly variable between approximately 400 and 1,600 m^3/s in February and March.
- Flows were lower in April, gradually declining averaging approximately 600 m^3/s.

Mixing within the IDZ for each sediment pond discharge occurs with only a portion of the total flow in the Peace River. Mixing in IDZs has been assessed by Ecofish Research Ltd. (Ganshorn *et al*., 2017a, 2017b, 2019) on behalf of BC Hydro. Water quality monitoring in the Peace River is also undertaken by Ecofish and reported monthly.

1.4 Construction Activity

Construction of the Site C Clean Energy Project was initiated by BC Hydro in July 2015 and the MCW construction works were completed in 2024. The general progression of construction has involved site preparation and construction of access roads, preparation of RSEM disposal areas and excavations on both banks of the river, and excavation of twin diversion tunnels on the left bank. The river was diverted through the diversion tunnels as scheduled in 2020 Q3, the isolated section of the river channel was dewatered, and the earthfill dam construction reached its final elevation in Q3 2023. The dam was reshaped to its design configuration with placement of the dam cap and rip rap. Work is ongoing for the generating station and spillways. The reservoir filling was completed in November 2024. More information is available from BC Hydro at https://www.sitecproject.com/construction-activities.

RSEM areas are designated for disposal of excavated materials that are unsuitable for use in construction. Minimizing potential ARD/ML from this material is an important environmental protection measure for the project, as discussed in Section 5.0 of the CEMP (BC Hydro, 2016b). In order to restrict the development of ARD/ML in the future, the majority of PAG and AG material will be stored within the footprint of the reservoir and permanently submerged during operation of the reservoir. This includes material being placed upstream of the Dam Core in Zone 8.

A brief summary of construction activity undertaken in 2024 is provided below. The volumes of PAG material excavated are discussed in Section 2.2. A plan showing the construction site and the main areas within it is included as Figure 1-2.

Excavations of PAG bedrock occurred on the Right Bank in the Approach Channel and Spillway and the excavated material was temporarily placed in Area 20-21, which is under the control of BC Hydro. Small PAG exposures in Area A and Area 24 were covered with NPAG material by PRHP.

1.5 Water Management

The water management system is continuously adapted as earthworks are undertaken to achieve the final project configuration. The site is subdivided into a series of catchment areas for the purpose of water management. Surface water runoff and other contact water from these areas is collected and conveyed to a series of RSEM area sediment ponds (Figure 1-3). Water is transferred to the Water Treatment Plant (WTP) for treatment, as needed. Transfers between catchments are also occasionally undertaken to improve water management efficiency and ensure PAG contact waters are routed through a RSEM sediment control pond.

Earthworks for the Site C facilities were largely completed prior to 2024. Several project facilities were completed and several RSEM management areas were closed, this included final surface contouring and capping with NPAG materials. Surface runoff from the completed or closed areas is considered non-contact water and flows to the Peace River.

1.5.1 Left Bank

PRHP maintained control of the LBEX and RSEM L6 catchment areas on the Left Bank. Contact water from the small RSEM Area L6 catchment is conveyed to the RSEM Area L6 sediment pond. A pump and pipeline to direct water from the LBEX B2 sump to the RSEM L6 sediment pond was decommissioned in January 2024. PRHP handed control of the Left Bank water management to BC Hydro in 2024 Q2.

626,000 628,000 630,000 632,000 634,000 636,000

6,232,000 6,230,000 6,228,000 6,226,000

N

Area 26
85th Ave. Industrial Lands
Till Conveyor
RSEM R5a West Expansion
RSEM R5a
PR-03
RSEM R5a Central Expansion
RSEM L5 Extension
RSEM L5
Garbage Creek
LEFT (NORTH) BANK
Area 11
Site C Weather Station
ATCO CAMP
LBEX
RSEM L3
Area 25
Earthfill Dam
RSEM R5b
RSEM L6
Peace River
Moberly River
Approach Channel
RCC Excavation
RSEM R6
Area 13
Area 20
Area 21
Area 23
Area 54
Substation
Area A
Area 24
RIGHT (SOUTH) BANK
SEPTIMUS
Area 30
Pine River
WSC PRP
South Lagoon
The Station
Fort St. John Historic Park
Old Fort
Boutlou Coulee
Crawfords Coulee

FSJ A Weather Station
WSC PRP

BRITISH COLUMBIA
Vancouver

Legend

- Site C Boundary
- Work Area
- Water Survey of Canada, Peace River @ Pine Hydrometric Station
- Weather Station
- Water Quality Station

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DATE SAVED: May 30, 2023 **REVIEWED:** NM

DRAWN BY: AL **VERSION:** 1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2024 Final Report

TITLE:

Site Map of Site C Main Civil Works Area

PROJECT #: A416-7 *FIGURE:* 1-2

Coordinate System: *NAD 1983 UTM Zone 10N* ***Datum:*** *North American 1983* ***Units:*** *Meter*

Path: *P:\@Drafting\SiteCDrafting Figures\MXD\2023_Q1_Report\Fig 1_1_Overall_SiteMap_20230530.mxd*

6233000 629000 6232000 630000 6231000 631000 6230000 632000

628000 6233000 627000 6232000 626000

629000 632000 631000 6228000 6227000

626000 627000 628000 629000 630000

N

Garbage Creek

Peace River

Moberly River

Left Bank Excavation

LBEX-B2

RSEM L6

RSEM-L6-EOP

RSEM-L5 Extension

RSEM L5

Diversion Inlet

Diversion Outlet

RSEM-R6W-EOP

RSEM-R6E-EOP

Earthfill Dam

MWTF Discharge Conveyance Ditch

RSEM R6

Sludge Ponds

WTP

Pre-Treatment Pond

Area 54

SBIAR

RBDT Facilities

Area 21

Area A

Area 20

RSEM R5A

RSEM R5B

Approach Channel

Area 23

Substation Laydown

Area 23 Laydown

Legend

- Water Quality Sampling Location
- WTP Discharge Channel
- Pipeline from LBEX to RSEM L6
- Non-Contact Diversion
- RSEM-L6 Catchment
- Left Bank Excavation
- RSEM-R6 Catchment
- Area A Catchment
- Sediment Pond

DATE SAVED:	Jan 30, 2025
DRAWN BY:	AL
REVIEWED:	BM
VERSION:	1

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

0 200 400
Meters

CLIENT: PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT: **Site C Clean Energy Project ARD/ML 2024 Annual Report**

TITLE: 2024 Sediment Control Pond Catchment Areas

PROJECT #: A416-7 FIGURE: 1-3

P:\@Drafting\SiteC\Drafting Figures\APRX\2024 Final Report\Ch1 Figures.aprx

1.5.2 Right Bank

Non-contact water upstream of the Substation Laydown, Approach Channel and RSEM Area R5B are diverted in the Right Bank Diversion Ditch to the Moberly River confluence with the Peace River adjacent to RSEM Area R5B.

Contact water from RSEM Area R6 is conveyed to the RSEM R6 sediment control ponds. Water from other catchments above the RSEM area is also transferred to the RSEM R6 ponds. As of April 15, 2024, PRHP was no longer the prime contractor for the RSEM Area R6 ponds.

Area 30 is used to stockpile aggregates from the West Pine Quarry. Runoff from the stockpiled aggregates accumulate in the Area 30 sediment control pond and discharge to the adjacent wetlands through a riprap lined channel.

Area A is a large area to the east of the SBIAR in which NPAG aggregates were being extracted for use at the construction site. Contact water was generally directed to construction water supply or to a side arm of the Peace river.

1.6 Sediment Pond Discharge from PAG-Containing RSEM Catchments

1.6.1 Left Bank

No water was discharged from the sediment ponds on the Left Bank in the first four months of 2024. The RSEM L5 sediment control ponds were decommissioned in 2023 and as of April 15, 2024, PRHP was no longer the prime contractor for the RSEM Area L6.

1.6.2 Right Bank

A measured volume of 122,330 m^3 of water was discharged from the Right Bank in the first four months of 2024. All of this was discharged from the RSEM Area R6 West sediment control pond (RSEM R6W). As of April 15, 2024, PRHP was no longer the prime contractor for the RSEM Area R6 ponds.

The total volumes discharged from the sediment control ponds on the Right Bank in the first four months of 2024 are shown in Table 1-1 below. Daily volumes for each pond are presented in Appendix 1-A.

Discharges from the RSEM R6 West sediment control pond were generally dominated by inflows from AFDE dewatering wells in the RCC Area, with additional flows contributed from the WTP discharge.

Table 1-1:
Total Volume of PAG Contact Water Discharged (m^3) from Right Bank - 2024

Month	RSEM-R5A	RSEM R6E	RSEM R6W
January	-	-	34,283
February	-	-	37,797
March	-	-	37,651
April	-	-	12,599
TOTAL	**-**	**-**	**122,330**

Overall, the total discharge was relatively low (generally less than 20 L/s) in Q1. The discharge was generally greater than 20 L/s in April. The individual and total average daily discharge rates to the Peace River from the Right Bank (RSEM R6E, R6W and R5A ponds) in 2024 are shown Figure 1-4.

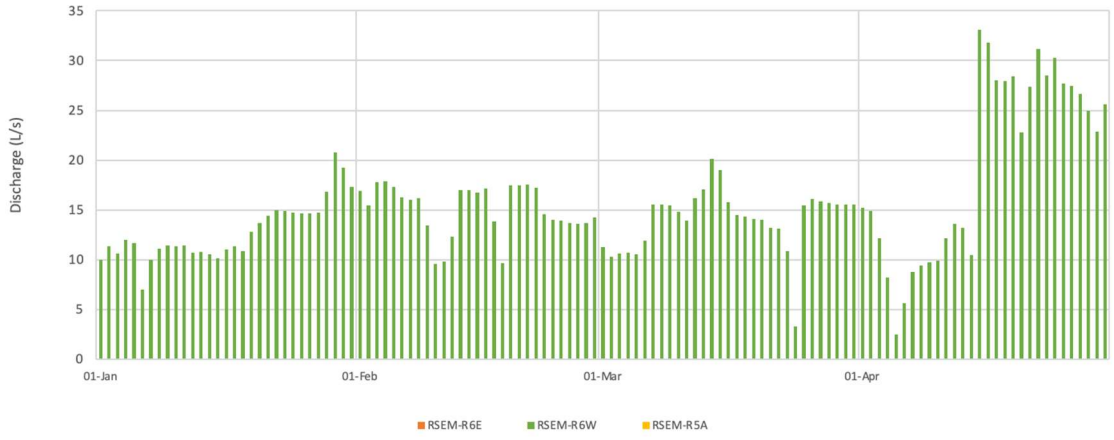

Figure 1-4: Total of Average Daily Discharge Rates (L/s) from Right Bank (RSEM-R6E, RSEM-R6W, RSEM-R5A) Sediment Control Ponds – 2024

Note: Graph shows combined flow from RSEM-R6E, RSEM-R6W and RSEM-R5A (stacked bars) on days when there was discharge from more than one of these ponds.

1.7 Data Management

A large volume of monitoring data has been compiled since the ARD/ML monitoring program was initiated in autumn 2016. An integrated system stores field monitoring results and laboratory data in a unified database.

The CERES data and EDDs are imported directly into a proprietary database system called EQWin that is capable of efficient data retrieval and reporting, and erroneous or invalid data detection. This provides an aggregated database of laboratory analytical and field water quality data. Both solid phase (ARD/ML analytical results, including the results of

rinse pH, ABA and metals analyses) and surface water quality results (both field and laboratory measurements) are stored in the EQWin database.

1.7.1 Field Monitoring

A customized data entry program called CERES, was developed by Lorax using Microsoft Access software for the Site C Project. It allows multiple PRHP staff to simultaneously enter field water quality, flow measurements and sample metadata while scrutinizing the data for potential transcription errors. The data entry would be completed by PRHP field staff after sample collection, with the database maintenance completed by Lorax. On a weekly basis, Lorax would download the recently entered data for entry into the main water quality database. A flow chart illustrating the flow of information from field collection to database storage is illustrated in Figure 1-5.

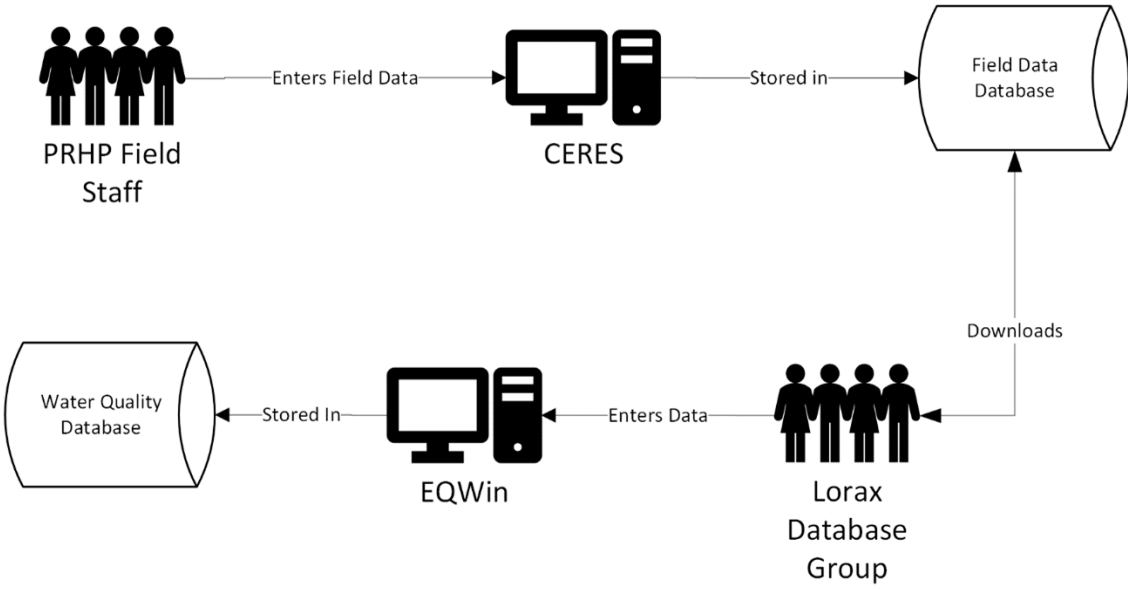

Figure 1-5: Data Flow Schematic

1.7.2 Laboratory Data

Water Quality laboratory results from the Bureau Veritas (BV, formerly Maxxam Analytics) laboratory in Burnaby, B.C. are provided in database-ready Electronic Data Deliverable (EDD) format to streamline data entry and minimize potential data entry detection of QA/QC issues. errors. A customized water quality EDD format was developed by BV to include data from RSEM area sediment pond discharges for early screening with respect to discharge limits.

1.7.3 EQWin Database

The CERES data and EDDs are imported directly into a proprietary database system called EQWin that is capable of efficient data retrieval and reporting, and erroneous or invalid data detection. This provides an aggregated database of laboratory analytical and field water quality data. Both solid phase (ARD/ML analytical results, including the results of rinse pH, ABA and metals analyses) and surface water quality results (both field and laboratory measurements) are stored in the EQWin database.

1.7.4 Final Database

The full database that Lorax compiled in the ML/ARD Management Annual reports was provided to PRHP. The database is saved in both Access database and Excel spreadsheet file formats to allow full access to the information. The Access database files are listed in Table 1-2. Due to the large amount of water quality data the water quality database has been separated into two time periods 2016-2018 and 2019-2024.

Table 1-2:
Digital Database Files

Data Type	Access Database Digital File Names
Water Quality	PRHP_WQ_db - Pre-2019.mdb / PRHP_WQ_db_2019-2024.mdb
Solid Phase ARD and SFE	PRHP_ARD_SFE.mdb
Sediment from sediment ponds and water treatment ponds	PRHP_Sludge.mdb
Ceres (Field Data)	CERES.accdb

2. PAG Bedrock Monitoring

PEACE RIVER
HYDRO PARTNERS

2. PAG Bedrock Monitoring

2.1 Purpose and Objectives

PRHP is required to monitor AG and PAG rock exposures and excavations in areas affected by work undertaken as part of the Main Civil Works Contract in accordance with the BC Hydro and PRHP Acid Rock Drainage and Metal Leaching Management Plans (Appendix E of the CEMP; BC Hydro, 2022a and Appendix A of EMP; Rev. 9, PRHP, 2017a, respectively). The specific objectives of this monitoring program are to:

- Confirm that the ARD/ML potential of bedrock is consistent with the original geochemical characterization work undertaken for the project that was used as the basis for the Environmental Assessment and water quality predictions;
- Monitor PAG rock exposures to provide early warning of any that have become acidic;
- Provide continuous geochemical characterization of excavated material disposed in various RSEM facilities; and
- Monitor the effectiveness of mitigation measures that have been implemented.

The baseline geochemical characterization of bedrock determined that all bedrock units that will be disturbed by dam site construction activities are PAG (KCB, 2015). This report specifies that bedrock should be assumed to be PAG or AG, unless direct sampling and analyses determine otherwise. ARD/ML monitoring is recommended for areas where bedrock is excavated and where these materials are stored. A summary of the material excavated and disposed in 2024 is included in Section 2.2.

2.2 Material Balance

Bedrock material excavation and disposal was tracked throughout 2024. A total of 11,190 m^3 PAG bedrock was excavated in 2024 on the Right Bank from the Approach Channel and Spillway. The material was temporarily placed in Area 20-21. BC Hydro has subsequently removed this material to a permanent storage location in Garbage Creek area of RSEM Area L3 prior to reservoir flooding. The locations of site facilities where excavation and storage have occurred are illustrated in Figure 2-1.

627,000 628,000 629,000 630,000 631,000 632,000

6,232,000 6,231,000 6,230,000 6,229,000 6,228,000

RSEM R5a
North Expansion

RSEM R5a
Central Expansion

RSEM Area R5A

RSEM Area
L5 Extension

RSEM Area L5

Garbage
Creek

Zone 8

RSEM Area R5B

Earthfill Dam

RSEM Area L6

Approach Channel and Spillway (11,190 m^3)
-Deposited in Zone 20-21.

Area 20/21

N

LEGEND

- Excavation Area
- Deposition Area

Note: Site C aerial imagery collected September 2023 to July 2024

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Metres*

1:18,000

0 200 400 600 Metres

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PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2024 Annual Report

TITLE:

PAG Excavation and Deposition Areas

PROJECT #: A416-7 *FIGURE:* 2-1

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2.2.1 Left Bank

In 2024, no material was excavated on the Left Bank. Cumulative volumes of PAG material in the Left Bank stockpiles are summarized in Table 2-1.

Table 2-1:
Summary of cumulative volumes of PAG material in the Left Bank stockpiles in 2024

Stockpile	Cumulative Volume Stockpiled (m^3)
RSEM Area L5	1,033,011
RSEM Area L5 Extension	495,792
RSEM Area L6	64,345
L5 Garbage Creek	25,980
Left Bank Dam Core	12,345
RSEM Area L5 Starter Dyke	4,869
Cumulative Total	***1,636,342***

2.2.2 Earthfill Dam

In 2024, no material was excavated from the Earthfill Dam. The cumulative volume of PAG material in Zone 8 is summarized in Table 2-2. Zone 8 is an area within the upstream side of the Earthfill Dam approved for the placement of PAG material. At the end of 2023, Zone 8 contained 1,984,760 m^3 of PAG bedrock and no material was added in 2024.

Table 2-2:
Summary of cumulative volumes of PAG material in Zone 8 in 2024

Stockpile	Cumulative Volume Stockpiled (m^3)
Zone 8 Cumulative Total	1,984,760

2.2.3 Right Bank

Excavations on the Right Bank in 2024 amounted to a total of 11,190 m^3 of PAG bedrock. This material was produced from excavations on the Approach Channel and Spillway (Table 2-3) by AFDE. The material excavated on the Right Bank was temporarily placed in Area 20-21. Cumulative volumes of PAG material in the Right Bank stockpiles are summarized in Table 2-4.

Table 2-3:
Summary of excavated PAG volumes on the Right Bank in 2024

Excavation Site	Material Excavated (m^3)
	Total
Approach Channel and Spillway	11,190

Table 2-4:
Summary of cumulative volume of PAG material in the Right Bank stockpiles in 2024

Stockpile	Cumulative Volume Stockpiled (m^3)
RSEM Area R5A	7,849,033
RSEM Area R5A Starter Dyke	57,540
RSEM Area R5B	363,847
AC Temporary Stockpile	390
Area 23	19,431
Area 20-21	51,174
Cumulative Total	***8,341,415***

2.3 Monitoring Program Summary

ARD/ML monitoring is undertaken in areas where bedrock is excavated or where these materials are deposited. Appropriate sampling locations are determined as construction activities proceed rather than routinely sampling at fixed monitoring stations.

Geochemical analysis of samples collected during the monitoring program included rinse pH measurements to determine surface pH, as well as acid-base accounting (ABA) and solid phase metals analysis. Rinse pH monitoring is generally focused where samples were previously identified to produce circumneutral to alkaline drainage (rinse pH > 5.5). Where acidic drainage is prevalent, ARD mitigation strategies are identified and recommended. The original monitoring framework is described in PRHP's Acid Rock Drainage and Metal Leachate Management Plan (PRHP, 2017b) which is Appendix A of PRHP's Environmental Management Plan (PRHP, 2017a).

No samples were collected from excavation sites or PAG stockpiles in 2024 for ARD/ML analysis.

2.4 Sediment Monitoring

The accumulated sediment at the bottom of sediment control ponds that may be removed by dredging is referred to as dredgeate. Sediment samples were collected in 2024 from the

sediment ponds in Area 11, Area 13, and Area 25 as well as the Phase 3 Crusher settling pond. The geochemical characteristics and hydrocarbon content of the samples were analysed to ensure the appropriate long-term management plans are implemented for the sludge and dredgeate.

The sediment screening approach and regulatory context is discussed in Section 2.4.1. The results of chemical characterization for the Area 11 dreadgeate are presented and discussed in Section 2.4.2, the Area 25 sediment pond dreadgeate results in Section 2.4.3, the Area 13 sediment pond dredgeate results in Section 2.4.4, and Phase 3 Crusher settling pond dredgeate results in Section 2.4.5. The laboratory Certificates of Analysis are included in Appendix 2-B.

2.4.1 Dredgeate Sediment Screening Approach

Section 7.2.4 of the Acid Rock Drainage and Metal Leachate Management Plan (BC Hydro, 2016a) addresses the testing and disposal of accumulated sediment from a PAG contact sediment control pond. It states the following:

> "If the Contractor must remove accumulated sediment from a PAG contact sediment pond, the Contractor shall test the sediment for metals and hydrocarbon to ensure it meets the regulated limits for the site where that accumulated sediment will be deposited."; and,
>
> "Prior to decommissioning or infilling of the PAG contact sediment pond, the contractor shall test the sediment for metals and hydrocarbon to ensure it meets the regulated limits."

The regulated limits for the site where accumulated sediment will be deposited are not explicitly stated and are inferred to be those established pursuant to the B.C. *Environmental Management Act*, as outlined by the Contaminated Site Regulation (CSR) and Hazardous Waste Regulation (HWR).

The CSR describes a risk-based approach for classifying the risk a contaminated site poses, and sets out requirements for site characterization and remediation, depending on the permitted land use. The CSR sets out numerical standards for the classification of contaminated sites based on the expected land use and exposure pathways. For the evaluation of sediment disposal, numerical standards listed by the British Columbia CSR are used for reference as a proxy for assessing the level of environmental risk posed by pond sediments. The lowest standard of the following three parts of CSR Schedule 3.1 was selected and used to screen the applicable parameter.

- Part 1 - Numerical Soil Standards, Column 9 Industrial (IL);

- Part 3 - Generic Numerical Soil Standards to Protect Ecological Health; Column 10 Industrial (IL); and
- Part 2 - Generic Numerical Soil Standards to Protect Human Health; Column 10 Industrial (IL).

In addition to the CSR, Section 1 of the HWR defines hazardous waste and should a material be defined as such; its disposal would be regulated by the HWR. It is possible that sediments accumulating in the ponds could contain leachable toxic waste and the Toxic Characteristic Leaching Procedure (TCLP) was conducted on the sediments and the TCLP leachate chemistry was screened against the Leachate Quality Standards listed in Schedule 4; Table 1 of the HWR.

2.4.2 Area 11 Dredgeate Results

A dredgeate sample was collected from Area 11 on August 1, 2024. Backfilling of the Area 11 pond was completed later in 2024.

The total metal content of the samples is screened against the lowest CSR standard for industrial lands as noted previously in Section 2.4.1. The total metal content of the samples is also screened against the range of concentrations measured in PAG bedrock and NPAG overburden. The list of metal(oid)s and the corresponding screening values for the Area 11 dredgeate sample are presented in Table 2-5. Concentrations for all metals in the sample were below the applicable CSR Soil Standard, except for As which slightly exceed the CSR standard by a factor of 1.01. However, the As concentration of the sample is within the ranges of PAG rock placed in RSEM Area R5A and NPAG overburden.

The hydrocarbon contents of the Area 11 dredgeate sample are below the CSR standards that were used to screen the samples, as shown in Table 2-6.

The leachable metal contents of the Area 11 dredgeate sample are summarized in Table 2-7and the regulated metal(oid)s were below the HWR leachate standards used to screen the samples.

Based on these results, the sediment that has accumulated in Area 11 is geochemically suitable for permanent storage in the Area 11 pond.

Table 2-5:
Total Metal Content of Area 11 and Area 25 Sediment Pond Dredgeate

Sample ID	Units	Area 11-SP Dredgeate	Area 25-SP Dredgeate	PAG Material deposited in RSEM Area R5A [1]				NPAG Material (Left Bank) [2]				CSR Soil Standard [3]	CSR Notes
Date		2024-08-01 3:00 PM	2024-08-15 9:00 AM	n	Minimum	Median	Maximum	n	Minimum	Median	Maximum		
Moisture	%	19	37	-	-	-	-	-	-	-	-	-	No standard in Schedule 3.1
Total Sulfur (S)	%	0.07	0.08	12	0.42	0.85	1.19	-	-	-	-	-	No standard in Schedule 3.1
Soluble (2:1) pH	pH	8.27	7.88	137	2.31	6.7	10.6	20	7.4	8.195	8.79	-	No standard in Schedule 3.1
Total Metals													
Aluminum (Al)	mg/kg	12,900	11,400	12	5,300	8,200	11,700	20	6,800	12,400	22,700	250,000	Schedule 3.1 Part 2; IL
Antimony (Sb)	mg/kg	1.22	1.43	12	0.09	0.17	0.27	20	0.46	0.735	1.32	40	Schedule 3.1 Part 3; IL
Arsenic (As)	mg/kg	**10.1**	**13.7**	12	9.2	11.9	22.3	20	6.3	7.9	13.9	10	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Barium (Ba)	mg/kg	354	442	12	237	400	580	20	301	347.5	655	1,500	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates
Beryllium (Be)	mg/kg	0.76	0.61	1	0.76	0.76	0.76	-	-	-	-	pH-based	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 6.5 (std = 1 mg/kg); pH6.5 - <7.0 (std=4 mg/kg); pH7 - <7.5 (std=30mg/kg); pH7.5 - <8 (std=250 mg/kg); pH >=8 (std=500 mg/kg)
Bismuth (Bi)	mg/kg	0.20	0.24	12	0.22	0.29	0.34	20	0.08	0.185	0.34	-	No standard in Schedule 3.1
Cadmium (Cd)	mg/kg	0.807	0.885	12	0.15	0.33	0.43	20	0.58	1.035	1.24	pH-based	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH <7 (1 mg/kg); pH7-<7.5 (3 mg/kg); pH7.5-<8 (20mg/kg); pH>8 (50 mg/kg)
Calcium (Ca)	mg/kg	33,800	29,200	12	1,600	3,350	6,400	20	8,700	37,450	50,300	-	No standard in Schedule 3.1
Chromium (Cr)	mg/kg	29.5	39.9	12	12.4	18.65	29	20	35.2	41.2	104	60	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Cobalt (Co)	mg/kg	11.9	13.6	12	1	8.85	13.4	20	8.1	12.9	19.1	25	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Copper (Cu)	mg/kg	31.3	36.4	12	14.9	29.0	34.6	20	19.2	34.4	61.9	75	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 5.5 (lowest CSR standard); std varies with hardness, receiving hardness >= 200 mg/L is assumed
Iron (Fe)	mg/kg	28,100	34,400	12	13,200	18,800	23,400	20	20,300	26,150	40,200	150,000	Schedule 3.1 Part 2; IL
Lead (Pb)	mg/kg	13.6	16.4	12	11.1	16.0	28.7	20	8.05	13.65	20.6	200	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 5.0 (lowest CSR standard); std varies with hardness, receiving hardness = 200 to < 300 mg/L is assumed
Lithium (Li)	mg/kg	19	20.2	1	21.3	21.3	21.3	-	-	-	-	450	Schedule 3.1 Part 2; IL
Magnesium (Mg)	mg/kg	8,690	6,590	12	500	2,350	3,100	20	3,900	12,200	15,000	-	No standard in Schedule 3.1
Manganese (Mn)	mg/kg	411	467	12	10	86.5	154	20	275	458	728	2,000	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Mercury (Hg)	mg/kg	0.053	0.076	12	0.00006	0.083	0.107	20	0.031	0.0515	0.113	75	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Molybdenum (Mo)	mg/kg	2.69	3.30	12	0.46	1.3	14.4	20	1.48	2.725	5.28	150	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants
Nickel (Ni)	mg/kg	40.2	49.1	12	3.9	25.3	38.6	20	24.3	40.25	66.7	pH-based	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH<5 (90 mg/kg); pH5-<5.5 (100 mg/kg); pH5.5-<6 (150 mg/kg); pH6-<6.5 (200 mg/kg); pH6.5-<7 (300 mg/kg);pH7-<7.5 (900 mg/kg); pH7.5-<8 (5,000 mg/kg); pH>=8 (9,500 mg/kg)
Phosphorous (P)	mg/kg	856	911	12	570	710	970	20	810	895	1,350	-	No standard in Schedule 3.1
Potassium (K)	mg/kg	1890	1930	12	2,000	2,700	3,400	20	900	1,900	3,300	-	No standard in Schedule 3.1
Selenium (Se)	mg/kg	0.66	0.86	12	0.7	1.0	2.3	20	0.1	0.8	1.7	1	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Silver (Ag)	mg/kg	0.214	0.260	12	0.28	0.357	0.473	20	0.085	0.219	0.378	40	Schedule 3.1 Part 3; IL
Sodium (Na)	mg/kg	121	148	12	120	855	3,000	20	140	365	1,590	1,000	Schedule 3.1 Part 1; Na ion; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Strontium (Sr)	mg/kg	95.4	131	12	44.5	58.6	74.1	20	65.6	102	130	-	No standard in Schedule 3.1
Thallium (Tl)	mg/kg	0.244	0.256	12	0.05	0.09	0.31	20	0.08	0.185	0.3	25	Schedule 3.1 Part 3; IL
Tin (Sn)	mg/kg	0.53	0.70	1	0.7	0.7	0.7	-	-	-	-	300	Schedule 3.1 Part 3; IL
Titanium (Ti)	mg/kg	80.9	50.7	12	10	10	<50	20	50	170	290	-	No standard in Schedule 3.1
Uranium (U)	mg/kg	0.959	1.12	12	0.6	1.24	1.6	20	0.6	1.35	1.7	150	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Vanadium (V)	mg/kg	53.7	50.4	12	20	25.5	31	20	27	41.5	70	300	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Zinc (Zn)	mg/kg	109	140	12	18.6	111.5	155	20	53.7	113	178	pH-based	Schedule 3.1 Part 1; std varies with hardness, receiving hardness = 200 to < 300 mg/L is assumed; IL-groundwater flow to surface (AL-freshwater); pH<6 (150 mg/kg); pH6-<6.5 (250 mg/kg); pH6.5-<7 (350 mg/kg);pH7-<7.5 (600 mg/kg); pH7.5-<8 (1,500 mg/kg); pH>=8 (3,000 mg/kg)
Zirconium (Zr)	mg/kg	4.32	3.36	1	2.8	2.8	2.8	-	-	-	-	-	No standard in Schedule 3.1

[1] ABA and rinse pH test results for geochemistry samples collected in 2018. Site C Clean Energy Project Acid Rock Drainage and Metal Leachate 2018 Annual Report. 1 February 2019.
[2] Site C Clean Energy Project, Implementation Design Dam Site Geochemical Characterization – Status at the End of 2013, Revision 1. Prepared by Klohn Crippen Berger Ltd. and SNC-Lavalin Inc. for BC Hydro. BKS-03-101. January 2015.
[3] Contaminated Site Regulation (CSR) B.C. Reg. 375/96, amended July 7,2021; Schedule 3.1, Industrial Land. Matrix Standards for human health (intake of contaminated soil) and Environmental Protection (toxicity to soil invertebrates and plants) in Schedule 3.1 Part 1 and the Industrial Land Environmental Protection (groundwater flow to surface water used by aquatic life) standard are applied; the lowest standard is shown in the table. If no standard is specified in Generic Numerical Standards to Protect Ecological Health (Schedule 3.1 Part 3), then Generic Numerical Standards to Protect Human Health (Schedule 3.1, Part 2) are used.
Bold text with grey shading indicates the dredgeate exceeded the applicable CSR Soil Standard.

Table 2-6:
Hydrocarbon Content of Area 11 and Area 25 Dredgeate

Parameter	Units	Area 11-SP Dredgeate	Area 25-SP Dredgeate	CSR Soil Standard[1]	CSR Notes
		2024-08-01 3:00 PM	2024-08-15 9:00 AM		
Non-Halogenated Hydrocarbons					
VPH (VH6 to 10 - BTEX)	mg/kg	<8.6	<8.6	200	Schedule 3.1 Part 3; IL
Benzene	mg/kg	<0.0050	<0.0050	2.5	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Toluene	mg/kg	<0.050	<0.050	0.5	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Ethylbenzene	mg/kg	<0.010	<0.010	200	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
MTBE	mg/kg	<0.040	<0.040	20,000	Schedule 3.1 Part 2; IL
Styrene	mg/kg	<0.030	<0.030	50	Schedule 3.1 Part 3; IL
Xylenes (Total)	mg/kg	<0.057	<0.057	20	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Extractable Hydrocarbons					
LEPH (C10-C19 less PAH)	mg/kg	<100	<100	2,000	Schedule 3.1 Part 3; IL
HEPH (C19-C32 less PAH)	mg/kg	<100	160	5,000	Schedule 3.1 Part 3; IL
Oil and Grease	mg/kg	110	250	-	No standard in Schedule 3.1
Total PAH	mg/kg	0.097	0.099	-	No standard in Schedule 3.1
Acenaphthylene	mg/kg	<0.0050	<0.0050	-	No standard in Schedule 3.1
Acenaphthene	mg/kg	<0.0050	<0.0050	15,000	Schedule 3.1 Part 2; IL
Anthracene	mg/kg	<0.0040	<0.0040	30	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates; no standard groundwater (AL-freshwater)
Benzo(a)anthracene	mg/kg	<0.010	<0.010	10	Schedule 3.1 Part 3; IL
Benzo(b&j)fluoranthene	mg/kg	0.018	0.024	10	Schedule 3.1 Part 3; IL
Benzo(k)fluoranthene	mg/kg	<0.010	<0.010	10	Schedule 3.1 Part 3; IL
Benzo(g,h,i)perylene	mg/kg	<0.020	<0.020	-	No standard in Schedule 3.1
Benzo(a)pyrene	mg/kg	<0.010	<0.010	50	Schedule 3.1 Part 1; IL-human intake of soil; no standard groundwater (AL-freshwater)
Chrysene	mg/kg	<0.010	<0.010	4,500	Schedule 3.1 Part 2; IL
Dibenz(a,h)anthracene	mg/kg	<0.020	<0.020	10	Schedule 3.1 Part 3; IL
Fluoranthene	mg/kg	<0.010	<0.010	200	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates; no standard groundwater (AL-freshwater)
Fluorene	mg/kg	<0.010	<0.010	9,500	Schedule 3.1 Part 2; IL
Indeno(1,2,3-cd)pyrene	mg/kg	<0.020	<0.020	10	Schedule 3.1 Part 3; IL
1-Methylnaphthalene	mg/kg	-	-	1,000	Schedule 3.1 Part 2; IL
2-Methylnaphthalene	mg/kg	0.023	0.022	950	Schedule 3.1 Part 2; IL
Naphthalene	mg/kg	<0.010	<0.010	20	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates
Phenanthrene	mg/kg	0.039	0.032	50	Schedule 3.1 Part 3; IL
Pyrene	mg/kg	0.017	0.021	100	Schedule 3.1 Part 3; IL
Quinoline	mg/kg	-	-	10	Schedule 3.1 Part 2; IL
Glycols					
Ethylene Glycol	mg/kg	<10	<10	700	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL)
Triethylene Glycol	mg/kg	<10	<10	450,000	Schedule 3.1 Part 2; IL

[1] Contaminated Site Regulation (CSR) B.C. Reg. 375/96, amended July 7,2021; Schedule 3.1, Industrial Land. Matrix Standards for human health (intake of contaminated soil) and Environmental Protection (toxicity to soil invertebrates and plants) in Schedule 3.1 Part 1 and the Industrial Land Environmental Protection (groundwater flow to surface water used by aquatic life) standard are applied; the lowest standard is shown in the table. If no standard is specified in Generic Numerical Standards to Protect Ecological Health (Schedule 3.1 Part 3), then Generic Numerical Standards to Protect Human Health (Schedule 3.1, Part 2) are used.

Table 2-7:
Leachable Toxic Metal Content of Area 11 and Area 25 Dredgeate

Parameter (TCLP Leachate)	Area 11-SP Dredgeate	Area 25-SP Dredgeate	HWR Leachable Toxic Waste Standard[1]
	2024-08-01 3:00 PM	2024-08-15 9:00 AM	
Units	mg/L	mg/L	mg/L
Metals			
Arsenic (As)	<0.50	<0.10	2.5
Barium (Ba)	2.60	2.09	100
Boron (B)	<1.0	<0.10	500
Cadmium (Cd)	<0.10	<0.10	0.5
Chromium (Cr)	<0.50	<0.10	5
Copper (Cu)	<1.0	<0.10	100
Lead (Pb)	<0.50	<0.10	5
Mercury (Hg)	<0.020	<0.0020	0.1
Selenium (Se)	<0.10	<0.10	1
Silver (Ag)	<0.50	<0.010	5
Uranium (U)	<0.20	<0.10	10
Zinc (Zn)	<1.0	<0.10	500

[1] Hazardous Waste Regulation (HWR) B.C. Reg. 63/88, amended November 1, 2017. Schedule 4, Table 1. Only parameters with a standard are shown in the table.

2.4.3 Area 25 Dredgeate Results

A dredgeate sample was collected from Area 25 on August 15, 2024. Backfilling of the Area 25 pond was completed later in 2024.

The total metal content of the samples is screened against the lowest CSR standard for industrial lands as noted previously in Section 2.4.1. The total metal content of the samples is also screened against the range of concentrations measured in PAG bedrock and NPAG overburden. The list of metal(oid)s and the corresponding screening values for the Area 25 dredgeate sample are presented in Table 2-5. Concentrations for all metals in the sample were below the applicable CSR Soil Standard, except for As which slightly exceed the CSR standard by a factor of 1.37. However, the As concentration of the sample is within the ranges of PAG rock placed in RSEM Area R5A and NPAG overburden.

The hydrocarbon contents of the Area 25 dredgeate sample are below the CSR standards that were used to screen the samples, as shown in Table 2-6.

The leachable metal contents of the Area 25 dredgeate sample are summarized in Table 2-7 and the regulated metal(oid)s were below the HWR leachate standards used to screen the samples.

Based on these results, the sediment that has accumulated in Area 25 is geochemically suitable for permanent storage in the Area 25 pond.

2.4.4 Area 13 Dredgeate Results

Dredgeate samples were collected from Area 13 West Pond and the Area 13 East Pond on September 17, 2024. Backfilling of the Area 13 ponds was completed later in 2024.

The total metal content of the samples is screened against the lowest CSR standard for industrial lands as noted previously in Section 2.4.1. The total metal content of the samples is also screened against the range of concentrations measured in PAG bedrock and NPAG overburden. The list of metal(oid)s and the corresponding screening values for the Area 13 dredgeate samples are presented in Table 2-8. Concentrations for all metals in the sample were below the applicable CSR Soil Standard.

The hydrocarbon contents of the Area 13 dredgeate samples are below the CSR standards that were used to screen the samples, as shown in Table 2-9.

The leachable metal contents of the Area 13 dredgeate samples are summarized in Table 2-10 and the regulated metal(oid)s were below the HWR leachate standards used to screen the samples.

Based on these results, the sediment that has accumulated in Area 13 is geochemically suitable for permanent storage in the Area 13 ponds.

2.4.5 Phase 3 Crusher Pond Dredgeate Results

A dredgeate sample was collected from the Phase 3 Crusher Pond on September 28, 2024. The Phase 3 Crusher Pond area will be covered with topsoil during site restoration and revegetation activities, to be performed by other contractors following PRHP's hand over of the site.

The total metal content of the samples is screened against the lowest CSR standard for industrial lands as noted previously in Section 2.4.1. The total metal content of the samples is also screened against the range of concentrations measured in PAG bedrock and NPAG overburden. The list of metal(oid)s and the corresponding screening values for the Phase 3 Crusher Pond dredgeate sample are presented in Table 2-8. Concentrations for all metals in the sample were below the applicable CSR Soil Standard, except for As which slightly exceed the CSR standard by a factor of 1.2. However, the As concentration of the sample is within the ranges of PAG rock placed in RSEM Area R5A and NPAG overburden.

The hydrocarbon contents of the Phase 3 Crusher Pond dredgeate sample are below the CSR standards that were used to screen the samples, as shown in Table 2-9.

The leachable metal contents of the Phase 3 Crusher Pond dredgeate sample are summarized in Table 2-10 and the regulated metal(oid)s were below the HWR leachate standards used to screen the samples.

Based on these results, the sediment that has accumulated in the Phase 3 Crusher Pond is geochemically suitable for permanent storage in the Phase 3 Crusher Pond.

Table 2-8:
Total Metal Content of Area 13 and Phase 3 Crusher Sediment Pond Dredgeate

Sample ID	Units	Area 13 West Pond Dredgeate	Area 13 East Pond Dredgeate	Phase 3 Crusher Pond Dredgeate	PAG Material deposited in RSEM Area R5A [1]				NPAG Material (Left Bank) [2]				CSR Soil Standard [3]	CSR Notes
Date		**2024-09-17 9:00 AM**	**2024-09-17 9:05 AM**	**2024-09-28 3:00 PM**	**n**	**Minimum**	**Median**	**Maximum**	**n**	**Minimum**	**Median**	**Maximum**		
Moisture	%	9.2	14	37	-	-	-	-	-	-	-	-	-	No standard in Schedule 3.1
Total Sulfur (S)	%	0.06	0.07	0.08	12	0.42	0.85	1.19	-	-	-	-	-	No standard in Schedule 3.1
Soluble (2:1) pH	pH	8.32	8.44	7.88	137	2.31	6.7	10.6	20	7.4	8.195	8.79	-	No standard in Schedule 3.1
Total Metals														
Aluminum (Al)	mg/kg	4,300	5,170	5,530	12	5,300	8,200	11,700	20	6,800	12,400	22,700	250,000	Schedule 3.1 Part 2; IL
Antimony (Sb)	mg/kg	0.57	0.6	1.22	12	0.09	0.17	0.27	20	0.46	0.735	1.32	40	Schedule 3.1 Part 3; IL
Arsenic (As)	mg/kg	6.01	6.79	**12.2**	12	9.2	11.9	22.3	20	6.3	7.9	13.9	10	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Barium (Ba)	mg/kg	194	146	219	12	237	400	580	20	301	347.5	655	1,500	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates
Beryllium (Be)	mg/kg	0.27	0.29	0.3	1	0.76	0.76	0.76	-	-	-	-	pH-based	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 6.5 (std = 1 mg/kg); pH6.5 - <7.0 (std=4 mg/kg); pH7 - <7.5 (std=30mg/kg); pH7.5 - <8 (std=250 mg/kg); pH >=8 (std=500 mg/kg)
Bismuth (Bi)	mg/kg	<0.10	<0.10	<0.10	12	0.22	0.29	0.34	20	0.08	0.185	0.34	-	No standard in Schedule 3.1
Cadmium (Cd)	mg/kg	0.455	0.41	0.43	12	0.15	0.33	0.43	20	0.58	1.035	1.24	pH-based	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH <7 (1 mg/kg); pH7-<7.5 (3 mg/kg); pH7.5-<8 (20mg/kg); pH>8 (50 mg/kg)
Calcium (Ca)	mg/kg	30,600	27,300	35,400	12	1,600	3,350	6,400	20	8,700	37,450	50,300	-	No standard in Schedule 3.1
Chromium (Cr)	mg/kg	12.2	12.5	16	12	12.4	18.65	29	20	35.2	41.2	104	60	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Cobalt (Co)	mg/kg	5.1	5.52	7.27	12	1	8.85	13.4	20	8.1	12.9	19.1	25	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Copper (Cu)	mg/kg	13	13.2	13.5	12	14.9	29.0	34.6	20	19.2	34.4	61.9	75	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 5.5 (lowest CSR standard); std varies with hardness, receiving hardness >= 200 mg/L is assumed
Iron (Fe)	mg/kg	20,300	17,500	21,500	12	13,200	18,800	23,400	20	20,300	26,150	40,200	150,000	Schedule 3.1 Part 2; IL
Lead (Pb)	mg/kg	5.62	5.92	7.64	12	11.1	16.0	28.7	20	8.05	13.65	20.6	200	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH < 5.0 (lowest CSR standard); std varies with hardness, receiving hardness = 200 to < 300 mg/L is assumed
Lithium (Li)	mg/kg	6.17	7.14	5.83	1	21.3	21.3	21.3	-	-	-	-	450	Schedule 3.1 Part 2; IL
Magnesium (Mg)	mg/kg	5,240	6,150	10,000	12	500	2,350	3,100	20	3,900	12,200	15,000	-	No standard in Schedule 3.1
Manganese (Mn)	mg/kg	348	290	378	12	10	86.5	154	20	275	458	728	2,000	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Mercury (Hg)	mg/kg	<0.050	<0.050	0.05	12	0.00006	0.083	0.107	20	0.031	0.0515	0.113	75	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Molybdenum (Mo)	mg/kg	2.25	2.59	2.2	12	0.46	1.3	14.4	20	1.48	2.725	5.28	150	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants
Nickel (Ni)	mg/kg	16.9	18.5	22.2	12	3.9	25.3	38.6	20	24.3	40.25	66.7	pH-based	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater); pH<5 (90 mg/kg); pH5-<5.5 (100 mg/kg); pH5.5-<6 (150 mg/kg); pH6-<6.5 (200 mg/kg); pH6.5-<7 (300 mg/kg);pH7-<7.5 (900 mg/kg); pH7.5-<8 (5,000 mg/kg); pH>=8 (9,500 mg/kg)
Phosphorous (P)	mg/kg	651	661	817	12	570	710	970	20	810	895	1,350	-	No standard in Schedule 3.1
Potassium (K)	mg/kg	567	549	597	12	2,000	2,700	3,400	20	900	1,900	3,300	-	No standard in Schedule 3.1
Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	12	0.7	1.0	2.3	20	0.1	0.8	1.7	1	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Silver (Ag)	mg/kg	0.082	0.093	0.11	12	0.28	0.357	0.473	20	0.085	0.219	0.378	40	Schedule 3.1 Part 3; IL
Sodium (Na)	mg/kg	<100	<100	<100	12	120	855	3,000	20	140	365	1,590	1,000	Schedule 3.1 Part 1; Na ion; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Strontium (Sr)	mg/kg	64	63.7	65.8	12	44.5	58.6	74.1	20	65.6	102	130	-	No standard in Schedule 3.1
Thallium (Tl)	mg/kg	0.093	0.095	0.181	12	0.05	0.09	0.31	20	0.08	0.185	0.3	25	Schedule 3.1 Part 3; IL
Tin (Sn)	mg/kg	0.29	0.24	0.25	1	0.7	0.7	0.7	-	-	-	-	300	Schedule 3.1 Part 3; IL
Titanium (Ti)	mg/kg	110	114	218	12	10	10	<50	20	50	170	290	-	No standard in Schedule 3.1
Uranium (U)	mg/kg	0.616	0.603	0.818	12	0.6	1.24	1.6	20	0.6	1.35	1.7	150	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Vanadium (V)	mg/kg	24.4	24.6	30.7	12	20	25.5	31	20	27	41.5	70	300	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates and plants, no standard for groundwater
Zinc (Zn)	mg/kg	56.2	57.4	53.1	12	18.6	111.5	155	20	53.7	113	178	pH-based	Schedule 3.1 Part 1; std varies with hardness, receiving hardness = 200 to < 300 mg/L is assumed; IL-groundwater flow to surface (AL-freshwater); pH<6 (150 mg/kg); pH6-<6.5 (250 mg/kg); pH6.5-<7 (350 mg/kg);pH7-<7.5 (600 mg/kg); pH7.5-<8 (1,500 mg/kg); pH>=8 (3,000 mg/kg)
Zirconium (Zr)	mg/kg	1.92	1.42	3.02	1	2.8	2.8	2.8	-	-	-	-	-	No standard in Schedule 3.1

[1] ABA and rinse pH test results for geochemistry samples collected in 2018. Site C Clean Energy Project Acid Rock Drainage and Metal Leachate 2018 Annual Report. 1 February 2019.
[2] Site C Clean Energy Project, Implementation Design Dam Site Geochemical Characterization – Status at the End of 2013, Revision 1. Prepared by Klohn Crippen Berger Ltd. and SNC-Lavalin Inc. for BC Hydro. BKS-03-101. January 2015.
[3] Contaminated Site Regulation (CSR) B.C. Reg. 375/96, amended July 7,2021; Schedule 3.1, Industrial Land. Matrix Standards for human health (intake of contaminated soil) and Environmental Protection (toxicity to soil invertebrates and plants) in Schedule 3.1 Part 1 and the Industrial Land Environmental Protection (groundwater flow to surface water used by aquatic life) standard are applied; the lowest standard is shown in the table. If no standard is specified in Generic Numerical Standards to Protect Ecological Health (Schedule 3.1 Part 3), then Generic Numerical Standards to Protect Human Health (Schedule 3.1, Part 2) are used.
Bold text with grey shading indicates the dredgeate exceeded the applicable CSR Soil Standard.

Table 2-9:
Hydrocarbon Content of Area 13 and Phase 3 Crusher Sediment Pond Dredgeate

Parameter	Units	Area 13 West Pond Dredgeate	Area 13 East Pond Dredgeate	Phase 3 Crusher Pond Dredgeate	CSR Soil Standard[1]	CSR Notes
		2024-09-17 9:00 AM	2024-09-17 9:05 AM	2024-09-28 3:00 PM		
Non-Halogenated Hydrocarbons						
VPH (VH6 to 10 - BTEX)	mg/kg	<8.6	<8.6	<8.6	200	Schedule 3.1 Part 3; IL
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	2.5	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Toluene	mg/kg	<0.050	<0.050	<0.050	0.5	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	200	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
MTBE	mg/kg	<0.040	<0.040	<0.040	20,000	Schedule 3.1 Part 2; IL
Styrene	mg/kg	<0.030	<0.030	<0.030	50	Schedule 3.1 Part 3; IL
Xylenes (Total)	mg/kg	<0.057	<0.057	<0.057	20	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL-freshwater)
Extractable Hydrocarbons						
LEPH (C10-C19 less PAH)	mg/kg	<100	<100	<100	2,000	Schedule 3.1 Part 3; IL
HEPH (C19-C32 less PAH)	mg/kg	<100	170	<100	5,000	Schedule 3.1 Part 3; IL
Oil and Grease	mg/kg	190	110	<100	-	No standard in Schedule 3.1
Total PAH	mg/kg	<0.050	<0.050	0.15	-	No standard in Schedule 3.1
Acenaphthylene	mg/kg	<0.0050	<0.0050	<0.0050	-	No standard in Schedule 3.1
Acenaphthene	mg/kg	<0.0050	<0.0050	<0.0050	15,000	Schedule 3.1 Part 2; IL
Anthracene	mg/kg	<0.0040	<0.0040	<0.0040	30	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates; no standard groundwater (AL-freshwater)
Benzo(a)anthracene	mg/kg	<0.010	<0.010	<0.010	10	Schedule 3.1 Part 3; IL
Benzo(b&j)fluoranthene	mg/kg	<0.010	<0.010	0.028	10	Schedule 3.1 Part 3; IL
Benzo(k)fluoranthene	mg/kg	<0.010	<0.010	<0.010	10	Schedule 3.1 Part 3; IL
Benzo(g,h,i)perylene	mg/kg	<0.020	<0.020	0.046	-	No standard in Schedule 3.1
Benzo(a)pyrene	mg/kg	<0.010	<0.010	<0.010	50	Schedule 3.1 Part 1; IL-human intake of soil; no standard groundwater (AL-freshwater)
Chrysene	mg/kg	<0.010	<0.010	<0.010	4,500	Schedule 3.1 Part 2; IL
Dibenz(a,h)anthracene	mg/kg	<0.020	<0.020	<0.020	10	Schedule 3.1 Part 3; IL
Fluoranthene	mg/kg	<0.010	<0.010	<0.010	200	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates; no standard groundwater (AL-freshwater)
Fluorene	mg/kg	<0.010	<0.010	<0.010	9,500	Schedule 3.1 Part 2; IL
Indeno(1,2,3-cd)pyrene	mg/kg	<0.020	<0.020	<0.020	10	Schedule 3.1 Part 3; IL
1-Methylnaphthalene	mg/kg	-	-	-	1,000	Schedule 3.1 Part 2; IL
2-Methylnaphthalene	mg/kg	0.010	0.012	0.022	950	Schedule 3.1 Part 2; IL
Naphthalene	mg/kg	<0.010	<0.010	<0.010	20	Schedule 3.1 Part 1; IL-toxicity to soil invertebrates
Phenanthrene	mg/kg	0.015	0.019	0.045	50	Schedule 3.1 Part 3; IL
Pyrene	mg/kg	<0.010	<0.010	0.014	100	Schedule 3.1 Part 3; IL
Quinoline	mg/kg	-	-	-	10	Schedule 3.1 Part 2; IL
Glycols						
Ethylene Glycol	mg/kg	<10	<10	<10	700	Schedule 3.1 Part 1; IL-groundwater flow to surface (AL)
Triethylene Glycol	mg/kg	<10	<10	<10	450,000	Schedule 3.1 Part 2; IL

[1] Contaminated Site Regulation (CSR) B.C. Reg. 375/96, amended July 7,2021; Schedule 3.1, Industrial Land. Matrix Standards for human health (intake of contaminated soil) and Environmental Protection (toxicity to soil invertebrates and plants) in Schedule 3.1 Part 1 and the Industrial Land Environmental Protection (groundwater flow to surface water used by aquatic life) standard are applied; the lowest standard is shown in the table. If no standard is specified in Generic Numerical Standards to Protect Ecological Health (Schedule 3.1 Part 3), then Generic Numerical Standards to Protect Human Health (Schedule 3.1, Part 2) are used.

Table 2-10:
Leachable Toxic Metal Content of Area 13 and Phase 3 Crusher Sediment Pond Dredgeate

Parameter (TCLP Leachate)	Area 13 West Pond Dredgeate	Area 13 East Pond Dredgeate	Phase 3 Crusher Pond Dredgeate	HWR Leachable Toxic Waste Standard[1]
	2024-09-17 9:00 AM	2024-09-17 9:05 AM	2024-09-28 3:00 PM	
Units	mg/L	mg/L	mg/L	mg/L
Metals				
Arsenic (As)	<0.50	<0.50	<0.50	2.5
Barium (Ba)	1.9	1.9	2.0	100
Boron (B)	<1.0	<1.0	<1.0	500
Cadmium (Cd)	<0.10	<0.10	<0.10	0.5
Chromium (Cr)	<0.50	<0.50	<0.50	5
Copper (Cu)	<1.0	<1.0	<1.0	100
Lead (Pb)	<0.50	<0.50	<0.50	5
Mercury (Hg)	<0.020	<0.020	<0.020	0.1
Selenium (Se)	<0.10	<0.10	<0.10	1
Silver (Ag)	<0.50	<0.50	<0.50	5
Uranium (U)	<0.20	<0.20	<0.20	10
Zinc (Zn)	<1.0	<1.0	<1.0	500

[1] Hazardous Waste Regulation (HWR) B.C. Reg. 63/88, amended November 1, 2017. Schedule 4, Table 1. Only parameters with a standard are shown in the table.

3. Surface Water Quality Monitoring

PEACE RIVER
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3. Surface Water Quality Monitoring

3.1 Purpose and Objectives

The purpose of the surface water quality monitoring program is to meet PRHP's water quality monitoring requirements for PAG-contact water, which are stated in the BC Hydro and PRHP ARD/ML Management Plans. The specific objectives of the program are:

- To verify water quality predictions;
- To assess water quality within the construction site, including RSEM ponds and upgradient areas that affect them;
- To guide water management and verify the effectiveness of sediment pond operation; and
- To analyze water quality in PAG-containing RSEM sediment ponds that discharge to the Peace River, so as to assess compliance with end-of-pipe discharge limits.

3.2 Monitoring Program and Results

The PAG-contact water monitoring and compliance requirements are set out in Sections 7.2, 7.3 and 7.4.2 of the BC Hydro ARD/ML Management Plan. Requirements for NPAG contact water are set out in CEMP Section 4.14 Surface Water Quality Management. This report addresses the surface water quality monitoring and reporting requirements noted in Section 7.2.2 (RSEM end of pipe water quality), 7.3.2 (PAG containing RSEM material and contact water monitoring), and 7.4.2 (Exceedance Response Plan).

Other requirements are addressed separately. These include requirements related to toxicity (Sections 7.2.1 and 7.3.1 of the BC Hydro ARD/ML Management Plan), Peace River water quality downstream of each RSEM (7.2.3), and Peace River water quality monitoring (7.3.4). These requirements are addressed in other documents.

The aspects of the monitoring program that are addressed in this report are:

Continuous monitoring of discharge flow from each RSEM sediment control pond discharge pipe (Section 1.6);

Continuous monitoring (15 minute intervals) of pH, turbidity and electrical conductivity using in situ sonde measurements of PAG-contact RSEM sediment control pond water quality, when discharging (Section 3.2.3.4);

Daily field measurements and analytical water quality samples collected end of pipe from each PAG containing RSEM sediment control pond (Section 3.2.2 through Section 3.2.3);

Periodic field measurements and analytical samples collected in-pond from each PAG containing RSEM sediment control pond when not discharging (Section 3.2.2 through Section 3.2.3);

Daily, weekly or periodic field measurements and analytical samples of water quality at upstream sumps and ditches (Section 3.2.2 through Section 3.2.3); and, quality assurance and quality control (Section 3.2.4).

Analytical measurements include general water chemistry and total and dissolved metals. Analyses were completed by BV at their laboratory in Burnaby, B.C., which is accredited to the ISO 17025 standard for laboratory testing by the Standards Council of Canada (SCC). The BV location is listed as a qualified laboratory under the British Columbia Environmental Data Quality Assurance (EDQA) Regulation. The approach used to screen water quality results is presented in Section 3.2.1.

The results of the 2024 water quality monitoring program are summarized below for the Left Bank (Section 3.2.2) and the Right Bank (Section 3.2.3). Analytical measurements are described by station. The network of monitoring stations for the Site C project has been adapted as site conditions change. Some stations that were established in earlier construction phases are no longer in use and some new stations have been added.

Although the water management system is designed and operated by others, Lorax outlines water management information supplied by PRHP to provide context for the water quality results reported in these sections. The network of monitoring stations where samples were obtained in 2024 is discussed for each respective area in the sections below.

The Quality Assurance/Quality Control (QA/QC) monitoring results are summarized in Section 3.2.4. Tabulated water quality results for the 2024 ARD program are provided in:

- Appendix 3-A – 2024 *In Situ* Continuous Sonde Measurement Water Quality Data Summary (*i.e.*, continuously logged measurements from in-pond fixed probes);
- Appendix 3-B – 2024 *In Situ* Hand-Held Field Measurement Water Quality Data;
- Appendix 3-C – 2024 Analytical Sample and Field Duplicate Water Quality Data; and
- Appendix 3-D – 2024 Analytical Field Blank Water Quality Data
- Appendix 3-E – Water Quality Monitoring Field QA/QC Program
- Appendix 3-F – Bureau Veritas (Burnaby) Scope of Accreditation
- Appendix 3-G – Bureau Veritas (Calgary) Scope of Accreditation

3.2.1 Water Quality Screening Approach

Monitoring results from PAG-containing RSEM sediment control ponds are screened relative to the revised discharge limits as specified in Table 2 of Appendix E (Revision 6.0, dated January 17, 2022) of the CEMP (Revision 10.1, dated April 6, 2022). The revised RSEM EOP limits are presented in Table 3-1, for reference.

With respect to evaluating TSS, it is assumed that, during clear flow conditions (when background TSS is below 25 mg/L), the RSEM end-of-pipe discharge limit (i.e., the BC short-term WQG for TSS) is exceeded if the TSS in discharged water exceeds the background concentration by 25 mg/L at any one time for a duration of 24 hours. Because water quality sampling is conducted daily, the TSS exceedance screening protocol developed by PRHP for clear flow conditions in Peace River requires a TSS concentration in discharged water be above the BC short-term WQG for two consecutive days to be considered an exceedance of the RSEM end-of-pipe limit. During turbid flow conditions in Peace River, when background TSS is 25 mg/L or higher, an exceedance is triggered when a single sample is above the corresponding calculated BC WQG for TSS.

Table 3-1:
End-of-Pipe (EOP) Discharge Limits for PAG-containing RSEM Sediment Ponds

Parameter	Units	Revised End-of-Pipe Discharge Limit (April 6th, 2022 onwards)
TSS	mg/L	BC Water Quality Guidelines[1]
pH	pH units	6.0 – 9.0
Aluminum (Dissolved)	mg/L	0.460
Arsenic (Total)	mg/L	0.050
Cadmium (Dissolved)	mg/L	0.00186
Cobalt (Total)	mg/L	0.55
Copper (Total)	mg/L	0.0163
Iron (Total)	mg/L	20.9 (Turbid flow, April – June) 10.3 (Clear flow, July – March)
Manganese (Total)	mg/L	8.29
Zinc (Total)	mg/L	0.251

Notes:
[1] Approved British Columbia Water Quality Guidelines for the Protection of Aquatic Life (2021)

Water quality at stations within the construction site upgradient of RSEM sediment ponds are not compared to RSEM EOP limits as water accumulated at these stations are not discharged directly to the Peace River. It is conveyed to RSEM sediment ponds, where it mixes with water from other sources, or is trucked to the MWTF if deemed appropriate. Since the RSEM EOP discharge limits were derived to protect aquatic life, the stations within the construction site are in water storage or conveyance systems that are generally inaccessible to aquatic life and do not provide aquatic habitat. Therefore, RSEM sediment pond discharge is assessed independently.

Analytical results of samples from other construction areas are compared against the applicable limits shown in the CEMP Rev. 4, Section 4.14 (Surface Water Quality Management), Table 3 (page 62). The information from this table is reproduced in Table 3-2 for reference.

Table 3-2:
Limits for Construction Areas
Not Specified in Environmental Requirements

Parameter	Maximum Allowable
Suspended solids	• Change from background[1] of 25 mg/L at any one time for a duration of 24 hours in all waters during clear flows or in clear waters • Change from background[1] of 5 mg/L at any one time for a duration of 30 days in all waters during clear flows or in clear waters • Change from background[1] of 10 mg/L at any time when background is 25-100 mg/L during high flows or in turbid waters • Change from background[1] of 10% when background is >100 mg/L at any time during high flows or in turbid waters
Turbidity	• Change from background[1] of 8 NTU at any one time for a duration of 24 hours in all waters during clear flows or in clear waters • Change from background[1] of 2 NTU at any one time for a duration of 30 days in all waters during clear flows or in clear waters • Change from background[1] of 5 NTU at any time when background is 8-50 NTU during high flows or in turbid waters • Change from background[1] of 10% when background is >50 NTU at any time during high flows or in turbid waters
Streambed Substrate Composition	• % fines not to exceed: 10% < 2 mm, 19% <3 mm, 28% < 6.35 mm at salmonid spawning sites • Geometric mean diameter not less than 12 mm (minimum 30-day intra-gravel dissolved oxygen of 6 mg/L) • Fredle number not less than 5 mm (minimum 30-day intra-gravel dissolved oxygen of 8 mg/L)
pH	• 6.5 – 9.0
Oil and Grease	• The surface water should be virtually free of petroleum, animal or vegetable oils

[1]. Background is the measured concentration for specified parameters in the Peace River

Although not the primary focus of this report, analytical results from samples of non-construction contact surface water may be included in this report for comparative purposes and are screened against approved BC WQGs for the protection of aquatic life (BC ENV, 2021), in accordance with Section 5.2.1.7 of BC Hydro's ARD/ML Management Plan. This is applicable to water quality for discharges from Area 30/Septimus Hill which were compared to short-term BC WQGs. Furthermore, water samples from receiving environments, such as monitoring stations in the Septimus Beaver Pond were compared to both short- and long-term WQG.

Water quality guideline values that are calculated as a function of pH, temperature, and/or hardness are derived using the most conservative values per station for the week in which the laboratory results were obtained (minimum pH, hardness and maximum temperature). A unique TSS limit is calculated per day and is derived from the measured background TSS concentration in the Peace River for that given day. Analytical results are compared to the calculated TSS limit for the day the analytical sample is collected.

3.2.2 Left Bank

Water quality monitoring was conducted at RSEM L6 Pond EOP and in-pond station locations. The 2024 monitoring stations are listed in Table 3-3 and Table 3-4, and an overview of water quality and management in the catchment area for the Left Bank is presented in the sections below and in Section 4.1.2. The monitoring stations are shown in Figure 3-1. Analytical samples were collected and *in situ* field measurements were obtained from the RSEM Area L6 sediment control pond.

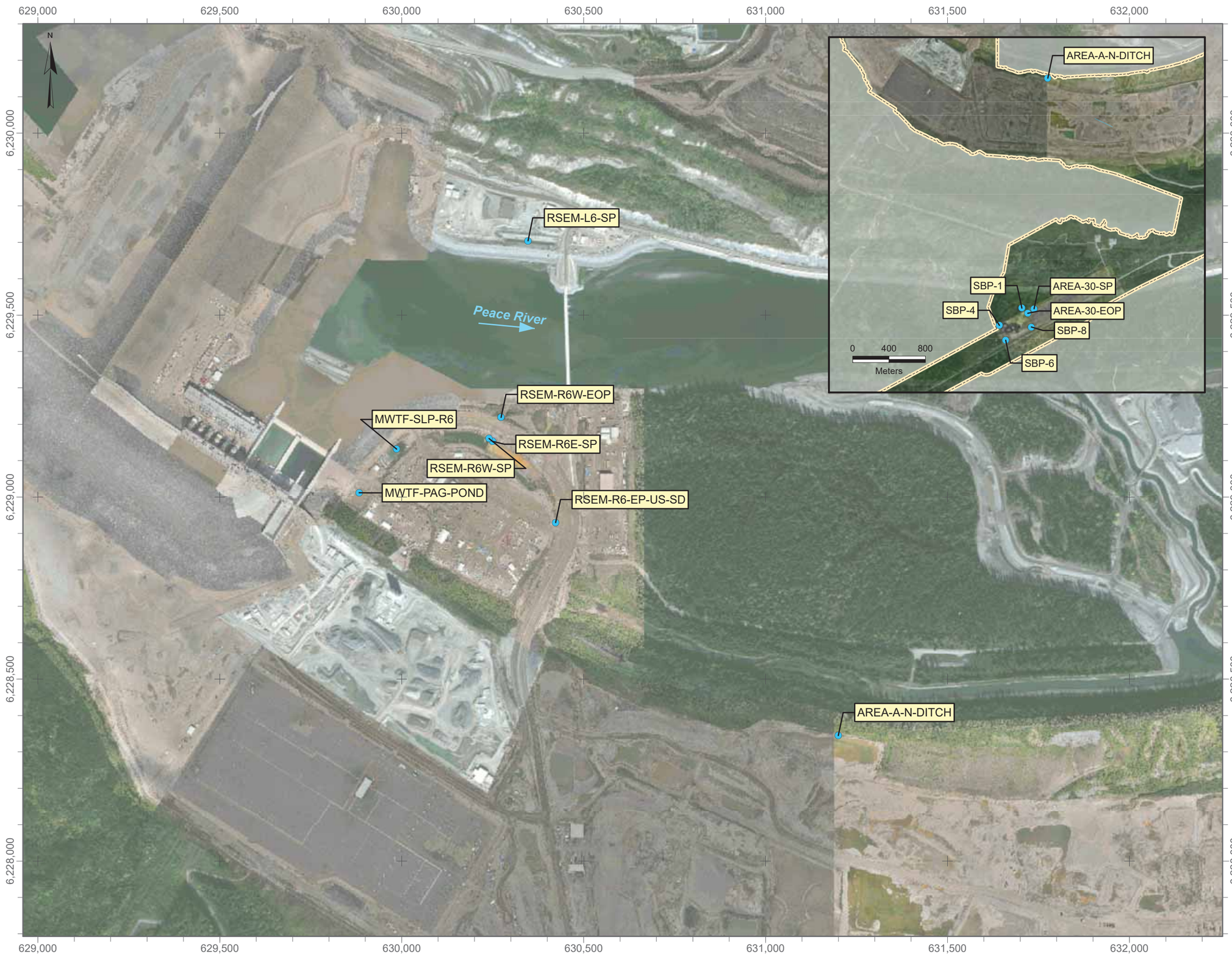
Table 3-3:
Water Quality Monitoring Stations in 2024 (Left Bank)

Station ID	Easting	Northing	Description
RSEM AREA L6			
RSEM-L6-SP	630347	6229704	RSEM L6 sediment control pond, in pond

Table 3-4:
Summary of Water Quality Monitoring (Left Bank) in 2024

Station ID[1]	*In situ* Sonde Continuos Measurements[2] (Y / N)	*In situ* Field Measurements		Analytical (Lab) Samples	
		Sample Count[3]	Intended Frequency[4] (D / W / M / P)	Sample Count	Intended Frequency[4] (D / W / M / P)
RSEM AREA L6					
RSEM-L6-SP	N	14	P	3	P

[1] -SP = sediment control pond, in pond location; -EOP = sediment control pond, end of pipe location.
[2] Y = Yes; N = No.
[3] Field duplicates are not included in the table.
[4] Intended monitoring frequency when flow or water level is adequate to obtain *in situ* measurement or surface water sample; D = Daily, W = Weekly, M = Monthly, P = Periodic (as needed). Measurements and samples are collected at the intended frequency if there is sufficient water at the time of monitoring. Intended frequencies are aligned with guidance in the Acid Rock Drainage and Metal Leachate Management Plan (BC Hydro, 2016a).



LEGEND

- Monitoring Location

Note: Site C aerial imagery collected September 2023 to July 2024

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:10,000

0 200 400
Meters

DATE SAVED:	Dec 31, 2024
DRAWN BY:	GM
REVIEWED:	BM
VERSION:	1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2024 Annual Report

TITLE:

Water Quality Sampling Locations

PROJECT #: A416-7 | *FIGURE:* 3-1

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3.2.2.1 RSEM Area L6 Sediment Control Pond

The RSEM L6 sediment control pond receives runoff water from RSEM Area L6 and discharges through a culvert onto a rip rap protected outfall, which descends the bank to the Peace River. Water quality is monitored at end-of-pipe (the EOP station) when discharging, and otherwise at the in-pond station (the SP station). The RSEM L6 Pond was designated as a hydrovac dump site for AFDE. The RSEM L6 Pond received runoff from the adjacent stockpiles originating from the Right Bank Cofferdam and dam overbuild. The pipeline that was installed from the LBEX Bench 2 sump to the RSEM L6 Pond and the pipeline was decommissioned in January 2024. As of April 15, 2024, PRHP was no longer the prime contractor for the RSEM Area L6.

The RSEM L6 sediment control pond did not discharge due to low water levels in 2024. Analytical water samples were collected from the in-pond station on March 18, April 5, and April 10. *In situ* field measurements were collected in parallel with analytical samples in addition to periodic field measurements from the in-pond station.

The pH in all analytical samples and field measurements was circumneutral to alkaline, with moderate sulphate levels (up to 150 mg/L) (Table 3-5; Figure 3-2 to Figure 3-11). Overall, the concentrations of metals (D-Al, T-As, D-Cd, T-Co, T-Cu, T-Fe, T-Mn, and T-Zn) were low.

Table 3-5:
RSEM L6 Pond 2024 Annual Water Quality Summary

Parameter		Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	D-Al	T-As	D-Cd	T-Co	T-Cu	T-Fe	T-Mn	T-Zn
Units		**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**6.0-9.0**	**-**	**-**	**WQG**	**-**	**0.46**	**0.05**	**0.00186**	**0.55**	**0.0163**	**10.3 (July-March) 20.9 (April-June)**	**8.29**	**0.251**
RSEM-L6-SP (n=3 lab, 14 field)	Max	9.1	605	727	4.7	150	0.0217	<0.0005	0.000043	<0.001	<0.0025	0.407	0.0519	<0.025
	Min	7.6	208	203	<1	42	0.0070	0.00039	<0.00001	0.00030	0.00141	0.063	0.0116	<0.005
	Median	8.6	375	462	2.7	79	0.0206	0.00046	0.000010	0.00050	0.00227	0.102	0.0187	0.0068

Notes: TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharge (-EOP samples). Revised RSEM EOP Limits (Revision 10.1, dated April 6, 2022) are shown in the table.

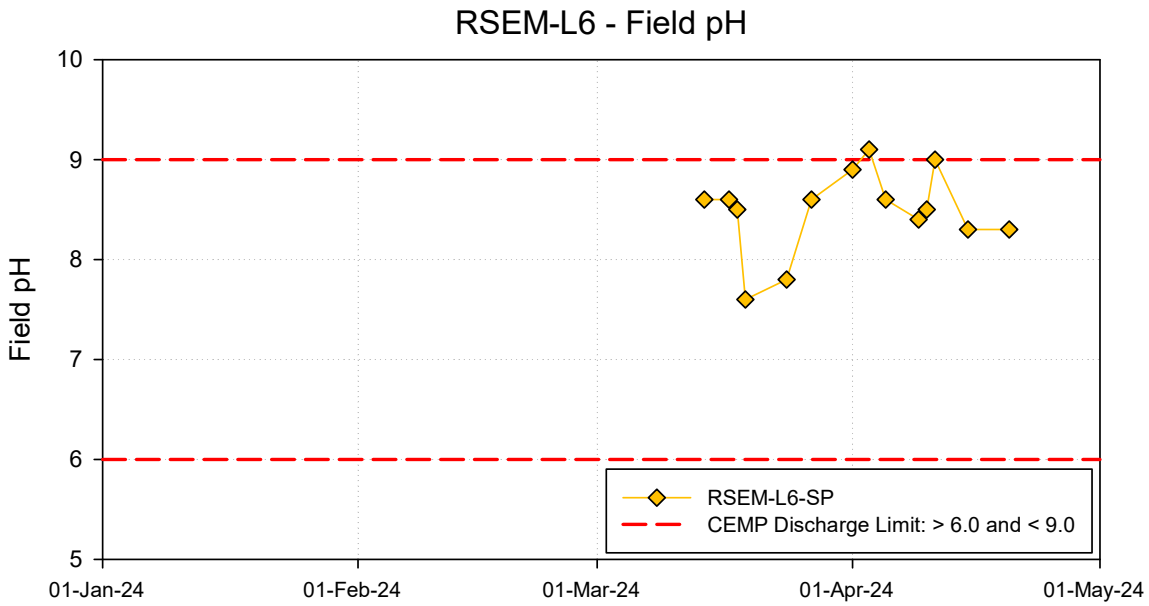

Figure 3-2: Time series profile for field pH in RSEM-L6 compared to RSEM EOP Limits in 2024. EOP – End of Pipe; SP – Sediment Pond.

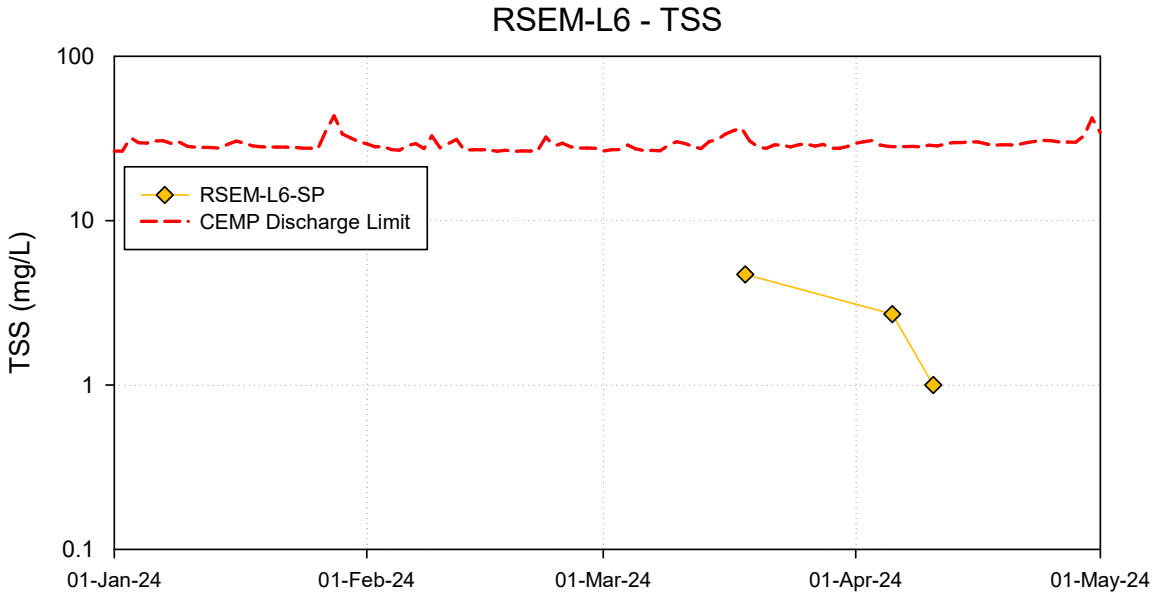

Figure 3-3: Time series profile for total suspended solids (TSS) in RSEM-L6 compared to RSEM EOP Limits in 2024. TSS is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond.

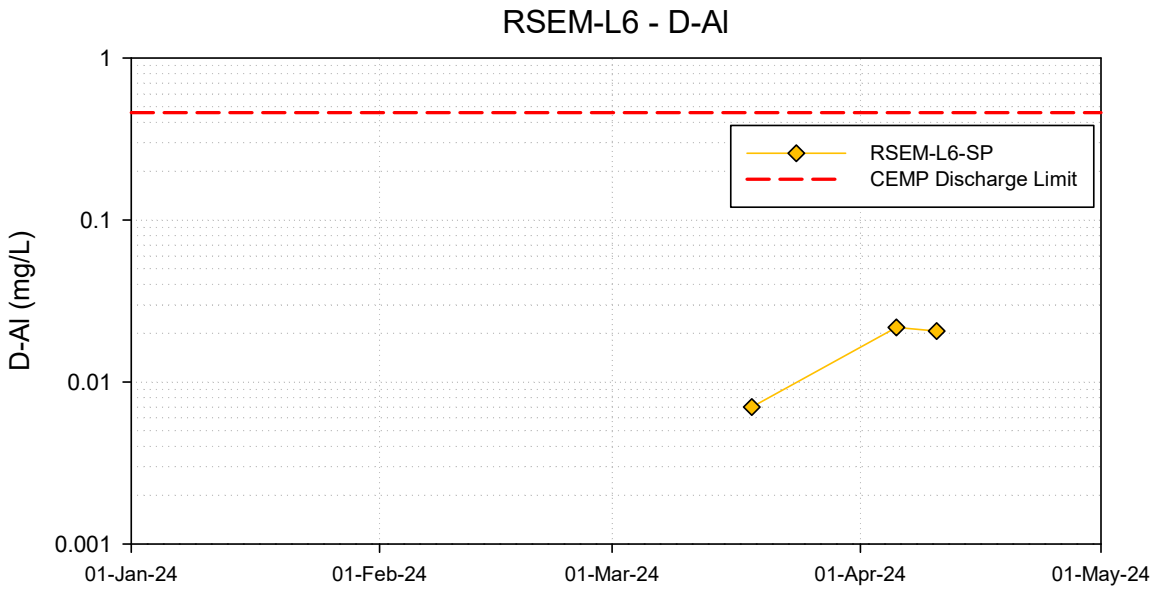

Figure 3-4: Concentrations of dissolved aluminum (Al) for RSEM-L6 compared to RSEM EOP Limits in 2024. D-Al is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; D – Dissolved Concentrations.

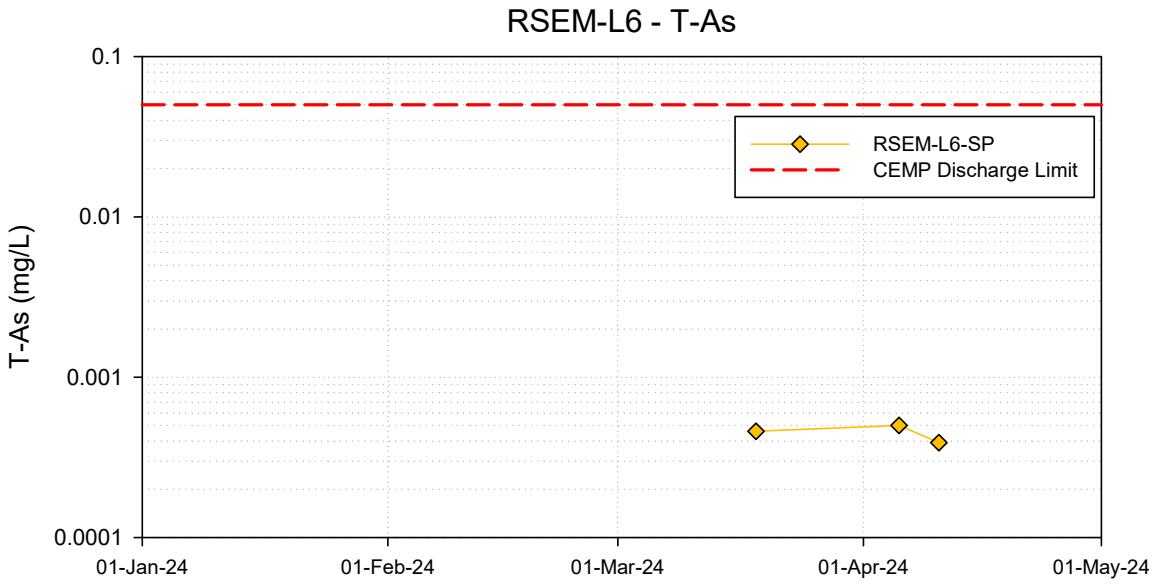

Figure 3-5: Concentrations of total arsenic (As) for RSEM-L6 compared to RSEM EOP Limits in 2024. T-As is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

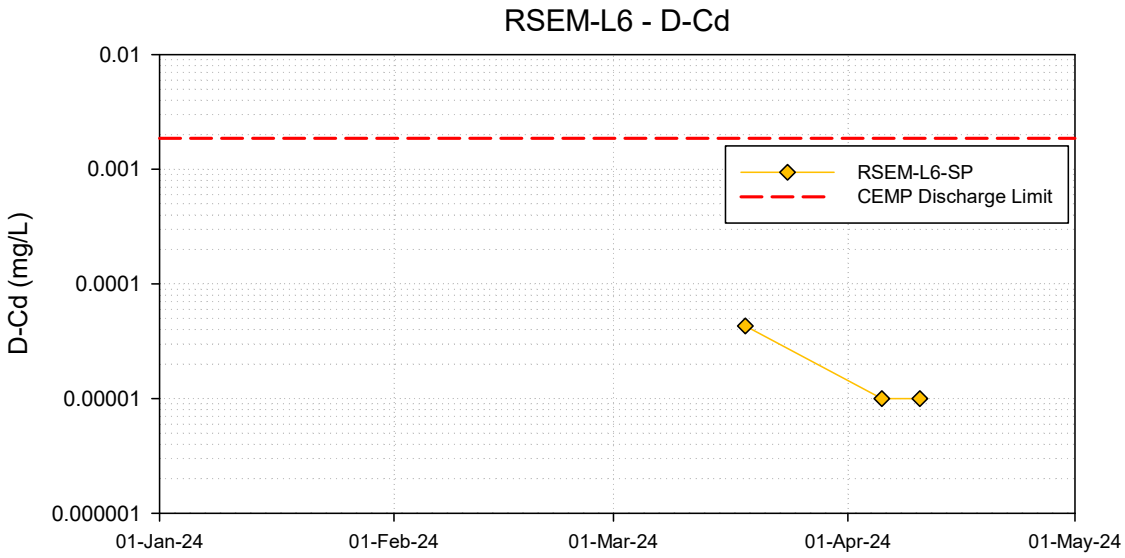

Figure 3-6: Concentrations of dissolved cadmium (Cd) for RSEM-L6 compared to RSEM EOP Limits in 2024. D-Cd is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; D – Dissolved Concentrations.

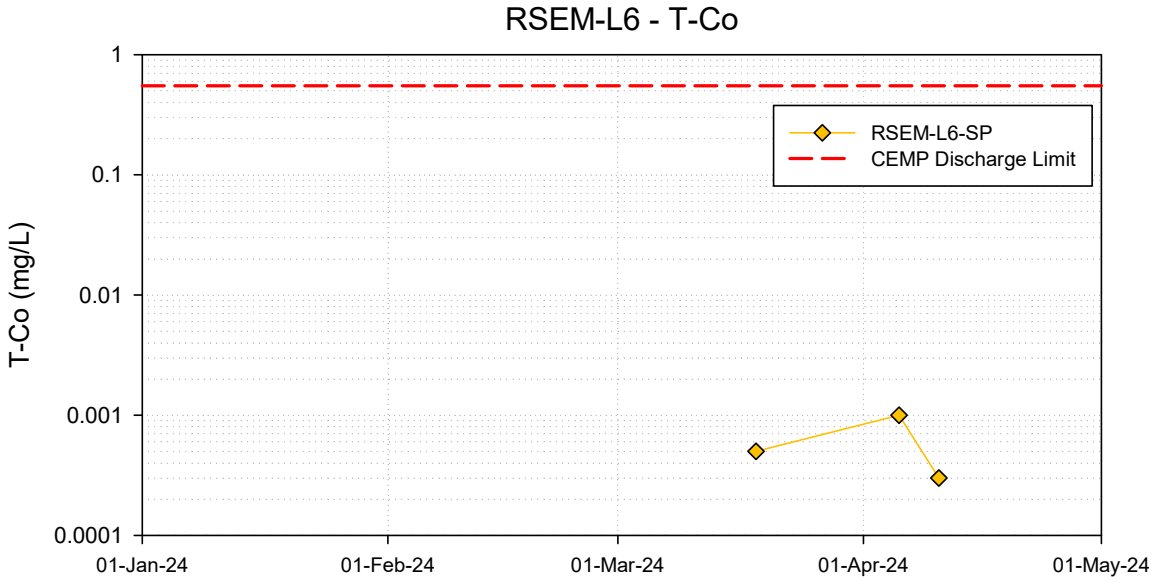

Figure 3-7: Concentrations of total cobalt (Co) for RSEM-L6 compared to RSEM EOP Limits in 2024. T-Co is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

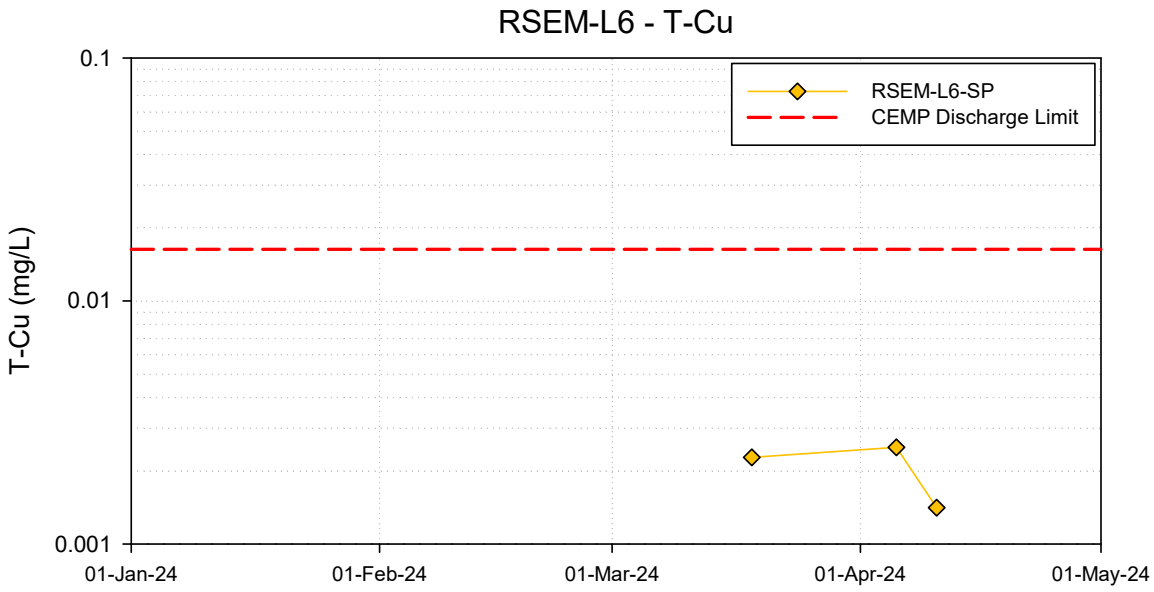

Figure 3-8: Concentrations of total copper (Cu) for RSEM-L6 compared to RSEM EOP Limits in 2024. T-Cu is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

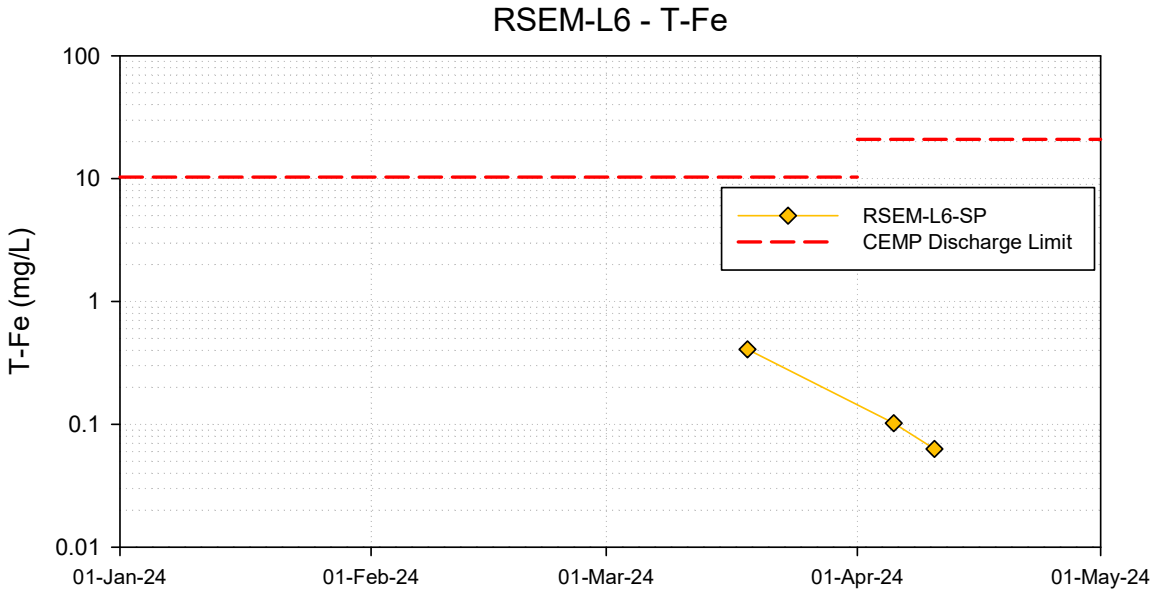

Figure 3-9: Concentrations of total iron (Fe) for RSEM-L6 compared to RSEM EOP Limits in 2024. T-Fe is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

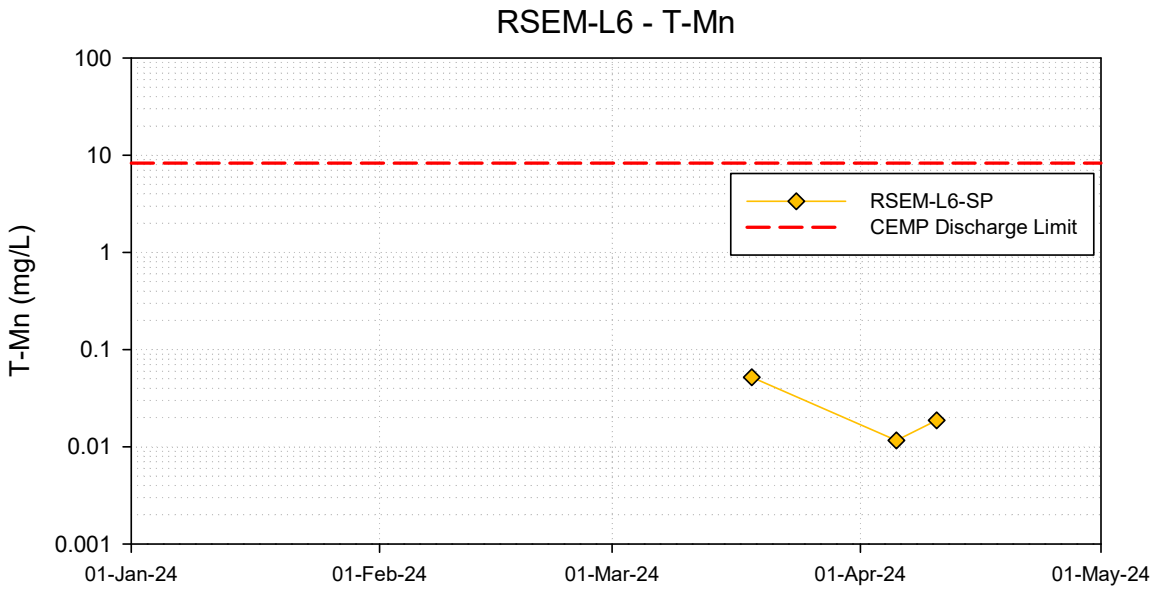

Figure 3-10: Concentrations of total manganese (Mn) for RSEM-L6 compared to RSEM EOP Limits in 2024. T-Mn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

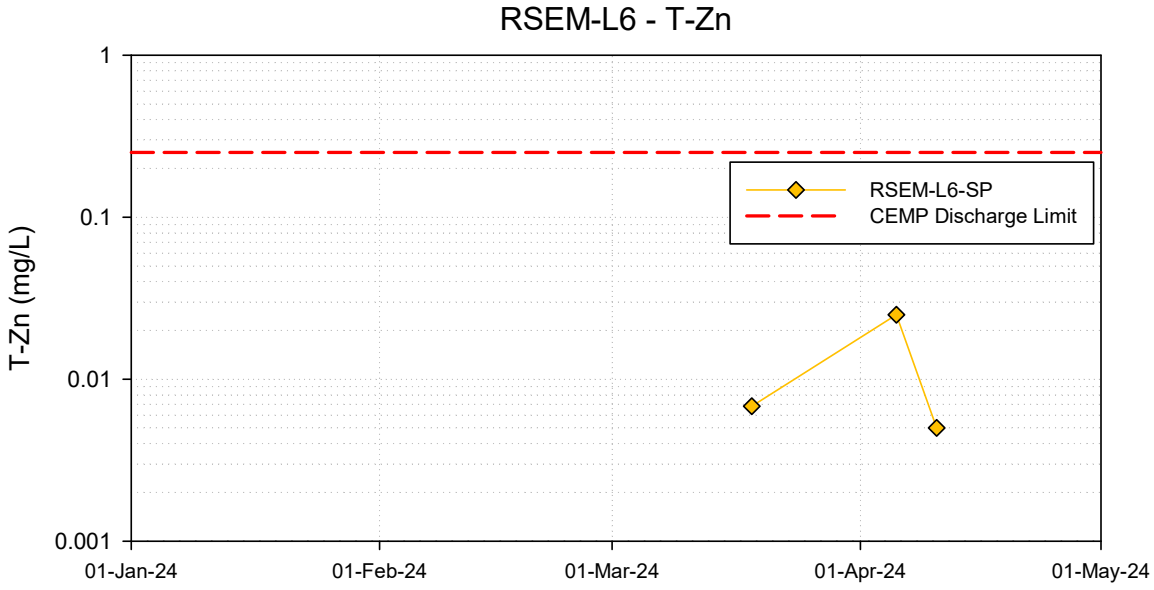

Figure 3-11: Concentrations of total zinc (Zn) for RSEM-L6 compared to RSEM EOP Limits in 2024. T-Zn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

3.2.3 Right Bank

Water quality monitoring performed on the Right Bank in 2024 included several stations in Area 30, Area A, RSEM Area R6 catchment, and the Water Treatment Facilities.

The 2024 station locations and monitoring frequencies are listed in Table 3-6 and Table 3-7, respectively. Monitoring locations are shown in Figure 3-1. Sampling and general water management within the catchment areas was conducted as follows:

- Area 30 / Septimus Hill – samples were obtained from the sediment pond and sediment pond outlet and from the receiving Septimus Beaver Pond.
- Area A – samples represent ponded groundwater intercepted in the eastern zones of Area A at the North Ditch. Ponded groundwater was discharged to the Peace River side channel.
- Water Treatment Facilities – samples were collected from the pre-treatment pond and plant discharge. Treated effluent from the MWTF/WTP Sludge Pond was discharged to the RSEM Area R6 West sediment control pond.
- RSEM Area R6 – samples of sediment control pond inflows were taken at the RSEM-R6-EP-US-SD. Samples were obtained daily from the RSEM R6 West sediment control pond EOP station (RSEM-R6W-EOP) when the pond was discharging.

Table 3-6:
Water Quality Monitoring Stations in 2024 (Right Bank)

Station ID	Easting	Northing	Description
AREA 30 / SEPTIMUS BEAVER POND			
AREA-30-SP	631049	6225811	Area 30 sediment control pond, in-pond
AREA-30-EOP	630980	6225761	Area 30 sediment control pond, end of pipe
SEPTIMUS-BEAVER-POND	630916	6225818	Septimus Beaver Pond sample location 1
	630668	6225628	Septimus Beaver Pond sample location 4
	630737	6225465	Septimus Beaver Pond sample location 6
	631020	6225610	Septimus Beaver Pond sample location 8
AREA A			
AREA-A-N-DITCH	631200	6228345	Ditch along the northern edge of Area A
WATER TREATMENT FACILITIES			
MWTF-PAG-POND	629883	6229012	Collection pond for possible ARD influenced water
MWTF-SLP-R6	629986	6229132	WTP sludge pond final treated effluent
RSEM AREA R6			
RSEM R6E SEDIMENT CONTROL POND			
RSEM-R6-EP-US-SD	630423	6228930	Ditch along SBIAR Road upstream of culvert
RSEM-R6E-SP	630250	6229153	RSEM R6 East sediment control pond, in-pond
RSEM R6W SEDIMENT CONTROL POND			
RSEM-R6W-SP	630240	6229161	RSEM R6 West sediment control pond, in-pond
RSEM-R6W-EOP	630273	6229219	RSEM R6 West pond, end of pipe

Table 3-7:
Summary of Water Quality Monitoring in 2024 (Right Bank)

Station ID[1]	*In situ* Continuous Measurements[2] (Y / N)	*In situ* Field Measurements		Analytical (Lab) Samples	
		Count[3]	Intended Frequency[4] (D / W / M / P)	Count	Intended Frequency[4] (D / W / M / P)
AREA 30 / SEPTIMUS HILL					
AREA-30-SP	N	19	P	2	P
AREA-30-EOP	N	8	P	3	P
SEPTIMUS-BEAVER-POND	N	0	P	4	P
AREA A					
AREA-A-N-DITCH	N	32	W	2	M
WATER TREATMENT FACILITIES					
MWTF-PAG-POND	N	95	W	16	W
MWTF-SLP-R6	N	16	D-W	112	W
RSEM AREA R6					
RSEM R6 EAST SEDIMENT CONTROL POND					
RSEM-R6-EP-US-SD	N	18	W	2	P
RSEM-R6E-SP	Y	56	P	16	P
RSEM R6 WEST SEDIMENT CONTROL POND					
RSEM-R6W-SP	Y	1	P	1	P
RSEM-R6W-EOP	N	111	D	77	D

[1] -SP = sediment control pond, in pond location; -EOP = sediment control pond, end of pipe location.
[2] Y = Yes; N = No.
[3] Field duplicates are not included in the table.
[4] Intended monitoring frequency when flow or water level is adequate to obtain *in situ* measurement or surface water sample; D = Daily, W = Weekly, M = Monthly, P = Periodic (as needed). Measurements and samples are collected at the intended frequency if there is sufficient water at the time of monitoring. Intended frequencies are aligned with guidance in the Acid Rock Drainage and Metal Leachate Management Plan (BC Hydro, 2016a).

3.2.3.1 Area 30 / Septimus Hill

Area 30 is located southeast of the dam construction area and includes the rail loadout facility located on Septimus Hill that receives and stockpiles limestone aggregate from the West Pine Quarry (Figure 3-1). The limestone at West Pine Quarry has been identified as having a potential for Se leaching under neutral to alkaline conditions. Runoff from the stockpiled aggregate accumulates in the Area 30 sediment control pond, located along the northern edge of Area 30, and discharges to the adjacent Septimus beaver pond through a coarse aggregate channel bound in wire cages.

The sediment pond or discharge was monitored on at least a monthly frequency in January through June during ice free periods and samples submitted to the analytical laboratory. Occasional discharge was reported in January, March, May and June. Visual flow estimates of the Area 30 sediment pond on days when water quality monitoring was conducted indicate flow out of the sediment pond was ≤10 L/s (Table 3-8).

Table 3-8:
Area 30 Sediment Pond 2024 Discharge Flows.

Date	Flow Observed (L/s)
30-Jan-2024	2.0
16-Mar-2024	1.0
02-May-2024	0.5
15-Jun-2024	10
16-Jun-2024	2.0
24-Jun-2024	5.0
26-Jun-2024	2.0

Field measurements collected at the Area 30 sediment control pond (in-pond and at EOP) show circumneutral conditions, with field pH and field conductivity ranging from pH 6.8 to 8.3 and 880 to 3,130 µS/cm (Table 3-9). Sediment pond water quality showed a maximum TSS of 12 mg/L. Analytical results for sediment pond discharge (Area-30-EOP) met the short-term BC WQGs for all parameters (Table 3-9).

Seasonal trends from the monitoring data indicate sulphate concentrations are generally lower in January and March, and higher in May and June, ranging from 365 to 1,730 mg/L. Concentrations for total Se range from 0.00106 mg/L to 0.00362 mg/L. The long-term Se water quality guideline is used as an early screening standard for the sediment pond water but is developed for the receiving environment, which in the case of Area 30 is the Septimus Beaver Pond. These Se concentrations in the sediment pond have triggered ongoing monitoring of the adjacent Septimus Beaver Pond in 2024 to ensure that Se concentrations continue to meet the WQG in the receiving environment.

Monitoring of the Septimus Beaver Pond was performed on May 2nd at four spatially distributed locations illustrated in Figure 3-1. Parameters which showed concentrations above the short-term BC WQGs were observed for total Fe at two locations and dissolved Fe at one location. Parameters were below applicable long-term BC WQGs.

Overall, Se concentrations show a range of <0.00010 mg/L to 0.00020 mg/L in Septimus Beaver Pond samples, below the long-term BC WQG (0.002 mg/L).

Table 3-9:
Area 30 / Septimus Hill 2024 Annual Water Quality Summary

Parameter		Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Fe	D-Fe	T-Se
Units		**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Short-term BC WQG		**6.5-9.0**	**-**	**-**	**WQG**	**-**	**1**	**0.35**	**-**
Long-term BC WQG		**-**	**-**	**-**		**429**	**-**	**-**	**0.002**
Area-30-SP* (n=2 lab, 19 field)	Max	8.3	2,740	2,900	12	1,730	0.459	<0.025	0.00306
	Min	6.8	1,300	970	6.9	658	0.181	<0.025	0.00121
	Median	7.9	2,020	2,040	9.6	1,194	0.320	0.025	0.00214
Area-30-EOP* (n=3 lab, 8 field)	Max	8.0	1,770	3,130	11	1,020	0.497	<0.025	0.00362
	Min	7.1	860	880	2.5	365	0.078	<0.025	0.00106
	Median	7.8	884	1,461	4.9	395	0.138	0.025	0.00124
SEPTIMUS-BEAVER-POND* (n=4 lab, 0 field)	Max	-	884	-	29	222	***2.18***	***0.395***	0.00020
	Min		467		5.8	24	0.352	0.0585	<0.0001
	Median		576		13.3	118	1.15	0.212	0.00014

Notes:

TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River. Calculated guidelines (*i.e.*, those based on hardness, pH, temperature, or chloride levels) are based on the minimum data statistic measured at the stations in 2024. Temperature of 10°C assumed.
*Stations Area-30-SP and Area-30-EOP are only screened against short-term BC WQGs while receiving station Septimus-Beaver-Pond is screened against both short-term and long-term BC WQGs. Water quality for these stations is screened against WQGs to guide water management (Section 3.2.1) and does not imply non-compliance with the CEMP. ***Red italics*** indicate the result is elevated relative to the short-term BC WQGs and bolded values in **orange highlight** indicate the result is elevated relative to the long-term BC WQGs.

3.2.3.2 Area A

Area A is located south-east of the dam construction area, and east of the SBIAR ditch (Figure 3-12 and Figure 3-13). Within this area, NPAG overburden and aggregate are excavated and transported to the Phase 2 Crusher to produce aggregate that is temporarily stockpiled for use at the construction site. Phase 2 Crusher water is directed to settling ponds in Area A to settle TSS, and clarified water is recycled within the crusher circuit.

The Area A North Ditch (Area-A-N-Ditch) receives seepage from the Crusher settling ponds and runoff from the slope northwest and downgradient of the Phase 2 Crusher facility, and is located along the northern edge of Area A (Figure 3-13). Water accumulating in the Area-A-N-Ditch was periodically discharged to adjacent vegetation or the Peace River side channel.

In 2024, analytical samples were collected in March and June from the Area A North Ditch, while field measurements were taken when sufficient water was present. All AREA-A-N-DITCH field measurements show circumneutral to slightly alkaline pH values (Table 3-10). TSS was relatively low in the March and June samples (26 and 22 mg/L, respectively). The total Fe concentration in the June 16 sample was above the short-term BC WQG. All other analytical results show parameter concentrations below the short-term BC WQGs.

Table 3-10:
Area A 2024 Annual Water Quality Summary

Parameter		Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	T-Fe
Units		**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**
Short-term BC WQG		**6.5-9.0**	**-**	**-**	**WQG**	**-**	**1**
AREA-A-N-DITCH (n=2 lab, 32 field)	Max	8.6	434	785	25.9	68	***1.40***
	Min	7.2	364	214	21.5	53	0.779
	Median	7.9	399	417	23.7	61	1.09

Notes: TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River. Calculated guidelines (*i.e.*, those based on hardness, pH, temperature, or chloride levels) are based on the minimum data statistic measured at the stations in 2024. Temperature of 10°C assumed.
Water quality for these stations is screened against WQGs to guide water management (Section 3.2.1) and does not imply non-compliance with the CEMP. ***Red italics*** indicate the result is elevated relative to the short-term BC WQGs.

3.2.3.3 Water Treatment Plant (WTP)

The WTP on the Right Bank is used to treat PAG contact water to meet the RSEM EOP discharge limits. It is located in the RSEM Area R6 catchment adjacent to the RBDT facilities (Figure 3-1). The WTP treatment process and system configuration are described in Section 4.1.3.

The former AK Pond is the WTP Pre-Treatment pond (MWTF-PAG-Pond). Water that requires treatment is stored in the WTP Pre-Treatment Pond to supply a steady flow of influent to the WTP. Treated water is routed through the WTP Sludge Pond to settle solids and lower pH prior to discharge of the treated effluent. The clarified and pH adjusted treated effluent (MWTF-SLP-R6) is discharged from the Sludge Pond Cell 3 to the RSEM R6 West sediment control pond by gravity flow through a lined discharge channel. A portion of the discharge channel passes through a zinc-plated corrugated steel culvert located under an access road crossing. As of April 22, 2024, PRHP was no longer the prime contractor for the WTP.

Process control analytical samples were collected approximately weekly by PRHP at the Pre-Treatment Pond (station MWTF-PAG-Pond; AK Pond) and the Sludge Pond outfall from Cell 3 (station MWTF-SLP-R6). Water directed to the WTP accumulated in the Pre-Treatment Pond. During January through mid-April 2024, the WTP was operated on March 18 to March 23 and again on March 24 to April 6.

Due to increased drainage flows from the RBDT, the RBDT waters were directed to the Pre-Treatment Pond and were pumped from there through the WTP untreated (except for the addition of flocculant and final pH adjustment in Cell 3) and discharged at station MWTF-SLP-R6 to the RSEM R6 West sediment control pond. The RSEM R6 East Pond was dewatered to the WTP in March 2024.

Field measurements were collected daily at MWTF-SLP-R6 and every few days in the Pre-Treatment Pond up to April 21, 2024. Analytical samples were collected weekly at MWTF-SLP-R6 and from the Pre-Treatment Pond (MWTF-PAG-POND).

The MWTF-PAG-POND water samples were alkaline and occasionally showed elevated TSS (maximum value 169 mg/L) and TSS influenced metal concentrations (Table 3-11).

Water quality at MWTF-SLP-R6 was dominantly influenced by RBDT dewatering, and did not represent treated WTP effluent. The water quality was circumneutral to alkaline with a maximum sulphate concentration of 67 mg/L. TSS concentrations in MWTF-SLP-R6 remained below 15 mg/L.

Table 3-11:
Water Treatment Facilities 2024 Annual Water Quality Summary

Parameter		Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	D-Al	T-As	D-Cd	T-Co	T-Cu	T-Fe	T-Mn	T-Zn
Units		**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
MWTF-PAG-POND (n=16 lab, 95 field)	Max	10.7	365	910	169	62	0.365	0.00310	<0.00001	0.00193	0.00783	3.9	0.0346	0.0193
	Min	8.7	224	190	2.3	21	0.0867	0.00086	<0.00001	<0.0002	0.00113	0.062	0.0022	<0.005
	Median	9.4	289	338	12	26	0.214	0.00125	0.000010	0.00034	0.00217	0.713	0.0080	0.0055
MWTF-SLP-R6 (n=16 lab, 112 field)	Max	9.0	367	457	14	67	0.243	0.00157	<0.00001	0.00058	0.00200	0.273	0.0139	<0.005
	Min	6.5	265	227	2.7	22	0.0267	0.00085	<0.00001	<0.0002	0.00110	0.065	0.0016	<0.005
	Median	8.1	298	349	8.0	27	0.0661	0.00104	0.000010	0.00020	0.00132	0.121	0.0032	0.0050

Notes:
TSS = Total suspended solids

3.2.3.4 RSEM Area R6 Sediment Control Ponds

The RSEM Area R6 East and West sediment control ponds are divided by a berm which isolates the two ponds from each other. The berm was designed to allow the cells to merge in a large (greater than 1-in-10 year 24-hour) storm event. The East and West ponds discharge through separate culverts onto a shared rip rap-protected outfall, which descends the bank to the Peace River. Two stations have been established in each pond: one station within the pond itself (the SP station), and another for sampling discharge from the end of pipe (the EOP station). The EOP station is sampled if there is discharge at the time of monitoring. As of April 15, 2024, PRHP was no longer the prime contractor for the RSEM Area R6 ponds.

The RSEM R6 East and West sediment control ponds receive surface runoff and periodic discharges from the remaining RSEM Area R6 catchment. The RSEM R6 East pond was dewatered to the RSEM R6 West pond. The RSEM R6 West sediment control pond has also been receiving treated effluent from the water treatment sludge ponds since May 9th, 2020.

Analytical water quality monitoring of RSEM R6 East and West sediment control ponds was conducted throughout 2024, including daily samples at EOP when discharging or occasional in-pond sampling when not discharging and as water levels allowed. The monitoring records indicate that the RSEM R6 West sediment control pond discharged most days in 2024. The East Pond did not discharge in 2024.

The continuous in situ sonde was deployed in-pond in 2024 at both ponds, excluding brief periods when the sonde required maintenance. Field measurements were collected on a daily to weekly basis at RSEM-R6-EP-US-SD, upstream of the RSEM R6 East pond, when water was flowing in mid-March to mid-April. Analytical water quality data and in situ field pH measurements for RSEM Area R6 East and West ponds are summarized in the sections below.

RSEM Area R6 East Catchment

Monitoring results for RSEM-R6-EP-US-SD, located at the inlet to the RSEM R6 East sediment control pond conveyance ditch, upstream of a road crossing, show slightly acidic conditions (pH 3.6 to 5.3) from March 17 to 19 then circumneutral conditions thereafter. TSS concentrations were variable in the two analytical samples collected, ranging from 703 mg/L to 1,390 mg/L, and corresponds to TSS influenced metal concentrations for total As, Co, Cu, Fe, Mn and Zn. Overall, sulphate levels were moderate (249 to 885 mg/L).

Analytical water quality data and field pH measurements for RSEM R6 East pond stations are summarized in Table 3-12 and trends in water quality are illustrated in Figure 3-12 through Figure 3-21. The 2024 monitoring data indicate the RSEM R6 East sediment control pond water was circum-neutral to slightly alkaline, with sulphate concentrations up to 172 mg/L. The RSEM R6 East sediment control pond did not discharge in 2024.

RSEM Area R6 West Catchment

Results for RSEM R6 West sediment control pond stations are summarized in Table 3-12 and water quality trends are illustrated in Figure 3-22 through Figure 3-31. The 2024 monitoring data indicate that the RSEM R6 West sediment control pond water and EOP discharges were circum-neutral to slightly alkaline, with sulphate concentrations up to 70 mg/L. All EOP analytical samples and in situ field measurements met RSEM EOP limits in 2024.

Table 3-12:
RSEM R6 East and West Pond 2024 Annual Water Quality Summary

Parameter		Field pH	Lab Conductivity	Field Conductivity	TSS	Sulphate	D-Al	T-As	D-Cd	T-Co	T-Cu	T-Fe	T-Mn	T-Zn
Units		**-**	**µS/cm**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**6.0-9.0**	**-**	**-**	**WQG**	**-**	**0.46**	**0.05**	**0.00186**	**0.55**	**0.0163**	**10.3 (July-March), 20.9 (April-June)**	**8.29**	**0.251**
RSEM-R6E-EP-US-SD (n=2 lab, 18 field)	Max	8.4	1,540	4,200	1,390	885	6.96	0.0235	0.0180	0.291	0.281	56.9	3.46	2.88
	Min	3.6	620	557	703	249	0.114	0.0234	0.000318	0.0836	0.144	51.1	1.03	1.01
	Median	8.2	1,080	980	1,047	567	3.54	0.0235	0.00916	0.187	0.213	54.0	2.25	1.95
RSEM-R6E-SP (n=16 lab, 56 field)	Max	8.9	964	1,290	18	172	0.0385	0.00088	0.000025	0.00249	0.0224	1.14	0.215	0.0498
	Min	7.5	100	95	<0.99	18	0.0033	0.00033	<0.00001	<0.0002	0.00077	0.022	0.0034	<0.005
	Median	8.2	503	558	2.4	79	0.0105	0.00047	0.000012	0.00043	0.00217	0.218	0.0382	0.0067
RSEM-R6W-SP (n=1 lab, 1 field)	Value	8.5	60	64	3.7	4.5	0.0148	0.00031	<0.00001	<0.0002	0.00342	0.158	0.0132	0.0314
RSEM-R6W-EOP (n=77 lab, 111 field)	Max	8.5	425	4,020	21	70	0.156	0.00167	0.000020	0.00067	0.0125	0.870	0.0321	0.0213
	Min	7.4	221	230	<1.5	23	0.0132	0.00079	<0.00001	<0.0002	0.00090	0.049	0.0017	<0.005
	Median	8.0	313	368	5.5	29	0.0672	0.00101	0.000010	0.00020	0.00135	0.095	0.0068	0.0059

Notes: TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharge (-EOP samples). Revised RSEM EOP Limits (Revision 10.1, dated April 6, 2022) are shown in the table.
Water quality for station RSEM-R6W-EOP is screened against RSEM EOP limits. ***Gold italics*** indicate the result is elevated relative to the revised RSEM EOP Limit (Revision 10.1, dated April 6, 2022).

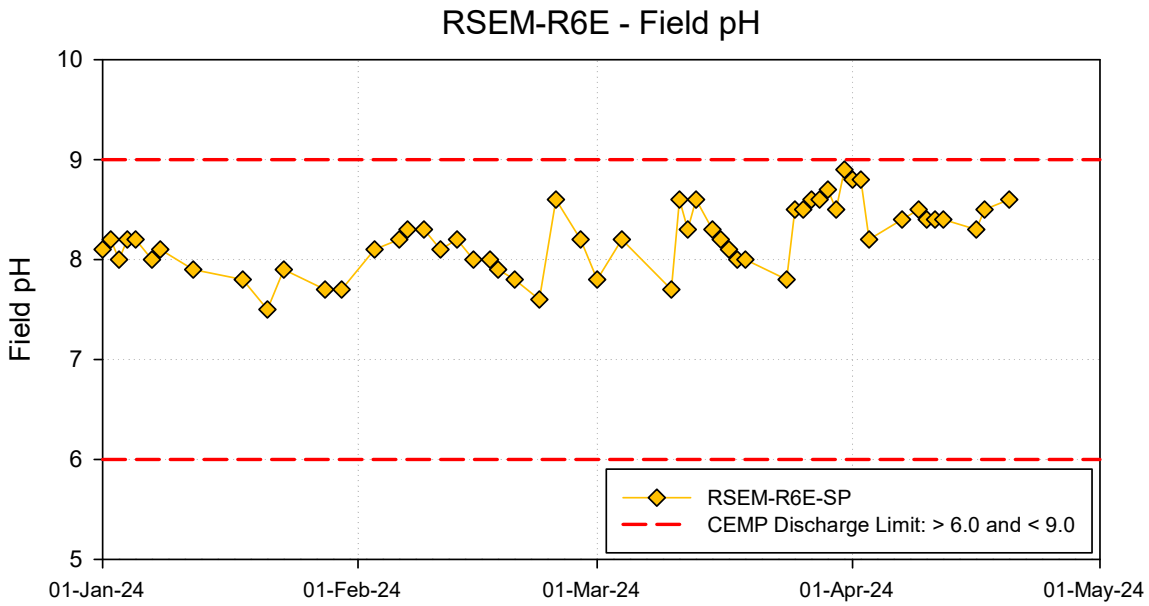

Figure 3-12: Time series profile for field pH in RSEM-R6 East compared to RSEM EOP Limits in 2024. EOP – End of Pipe; SP – Sediment Pond.

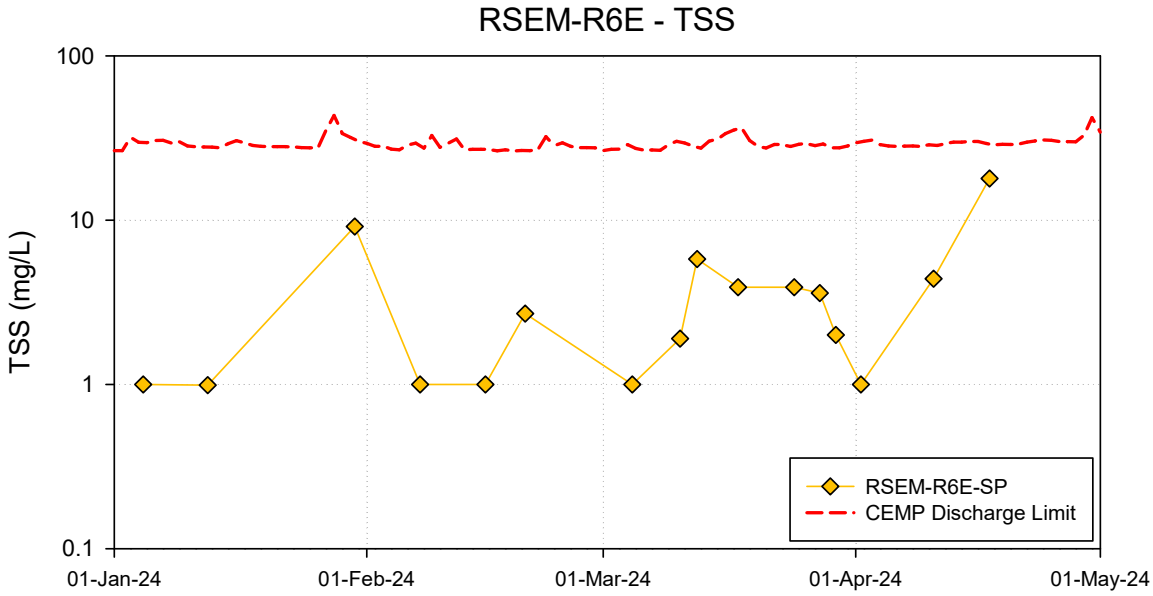

Figure 3-13: Time series profile for total suspended solids (TSS) in RSEM-R6 East compared to RSEM EOP Limits in 2024. TSS is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond.

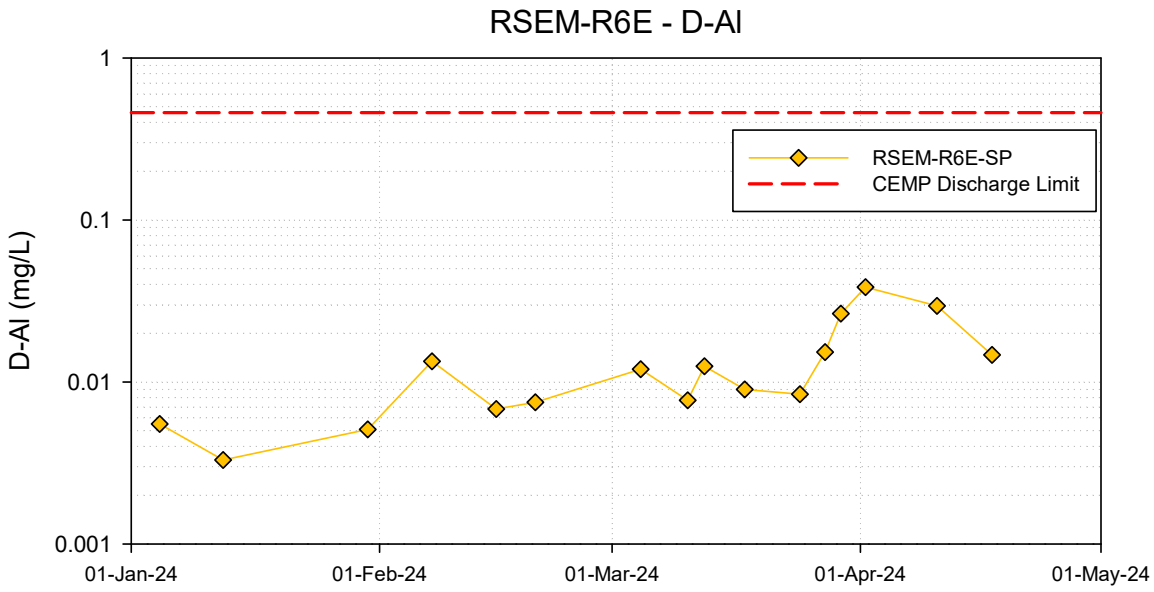

Figure 3-14: Concentrations of dissolved aluminum (Al) for RSEM-R6 East compared to RSEM EOP Limits in 2024. D-Al is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; D – Dissolved Concentrations.

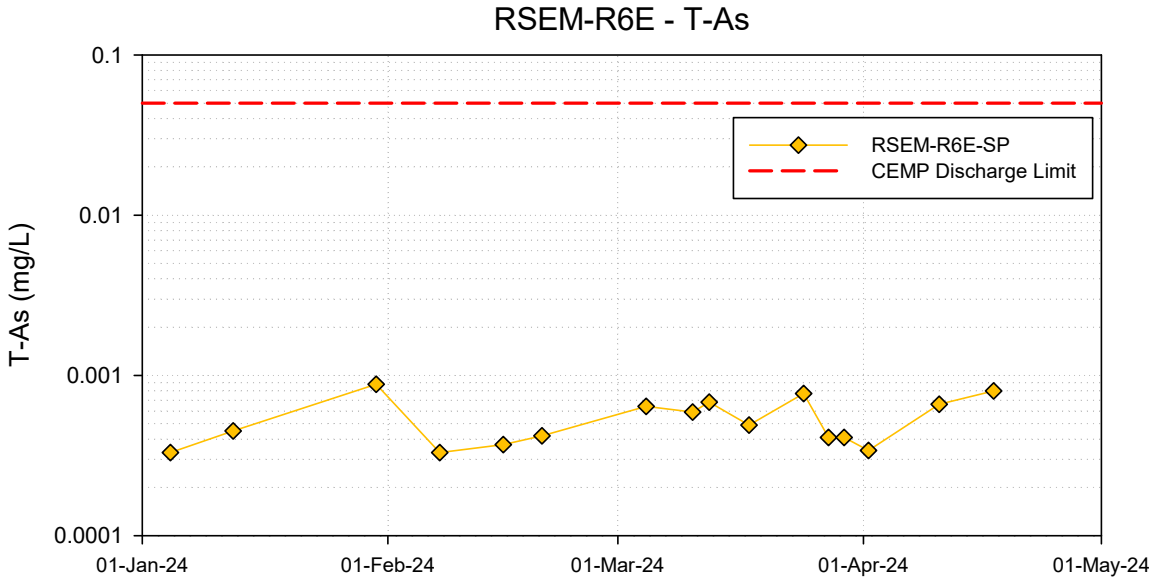

Figure 3-15: Concentrations of total arsenic (As) for RSEM-R6 East compared to RSEM EOP Limits in 2024. T-As is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

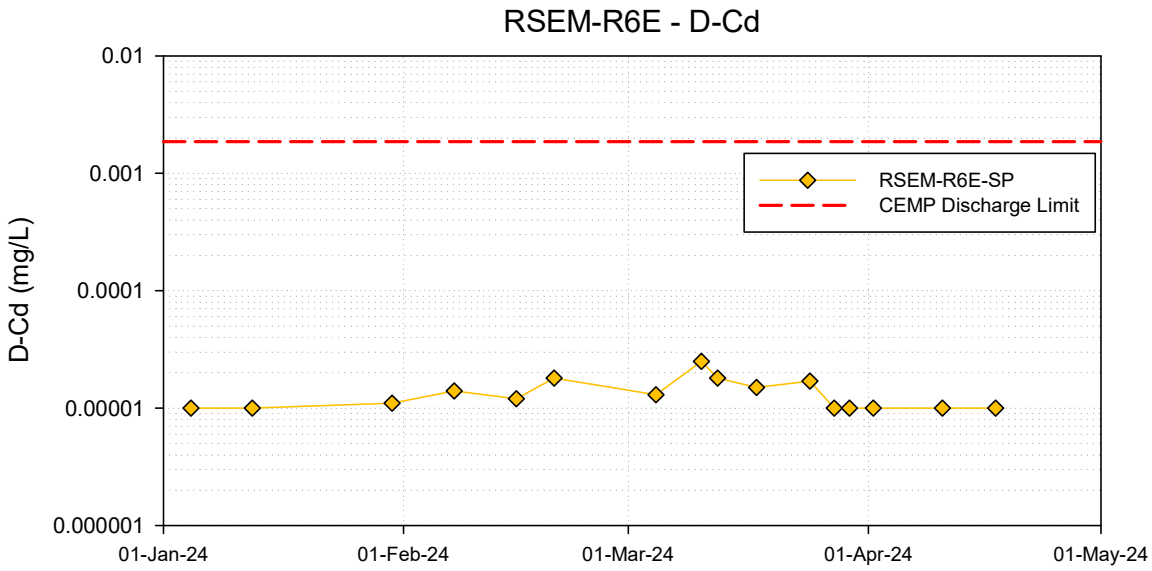

Figure 3-16: Concentrations of dissolved cadmium (Cd) for RSEM-R6 East compared to RSEM EOP Limits in 2024. D-Cd is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; D – Dissolved Concentrations.

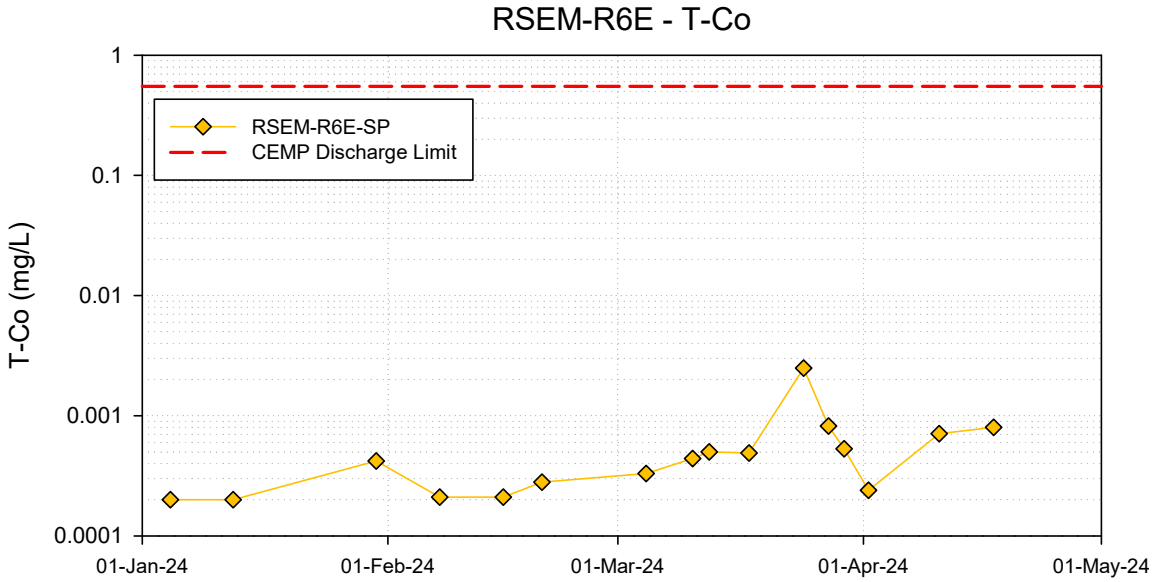

Figure 3-17: Concentrations of total cobalt (Co) for RSEM-R6 East compared to RSEM EOP Limits in 2024. T-Co is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

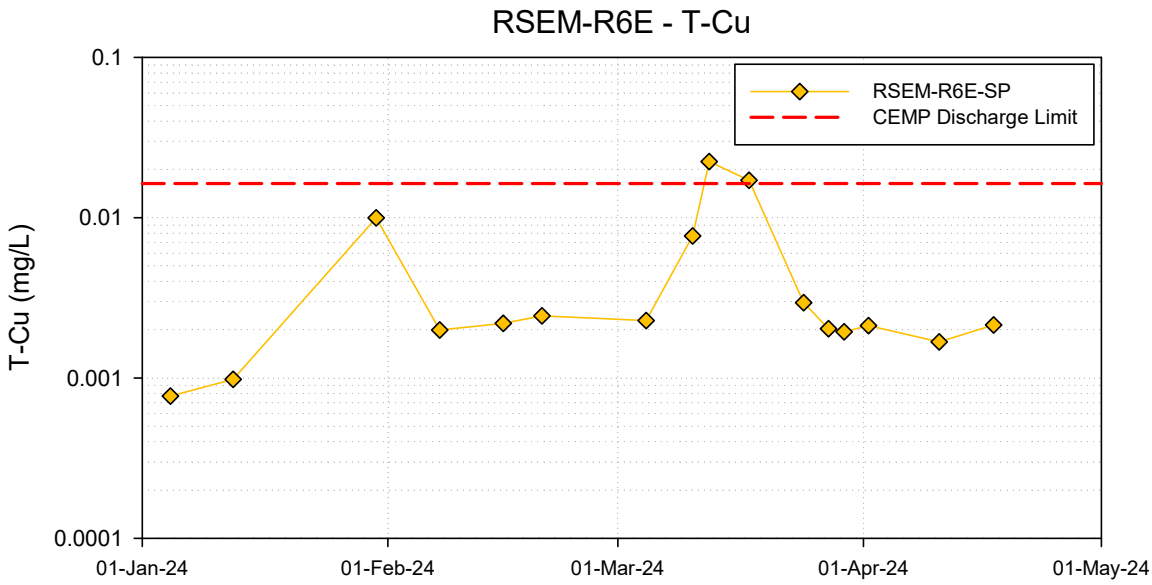

Figure 3-18: Concentrations of total copper (Cu) for RSEM-R6 East compared to RSEM EOP Limits in 2024. T-Cu is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

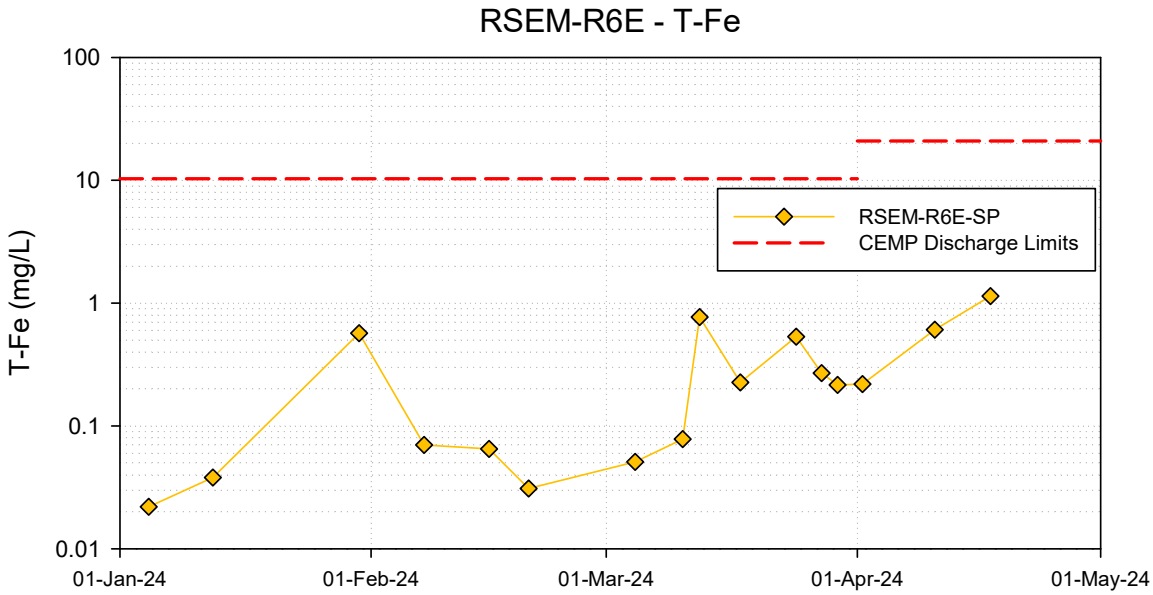

Figure 3-19: Concentrations of total iron (Fe) for RSEM-R6 East compared to RSEM EOP Limits in 2024. T-Fe is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

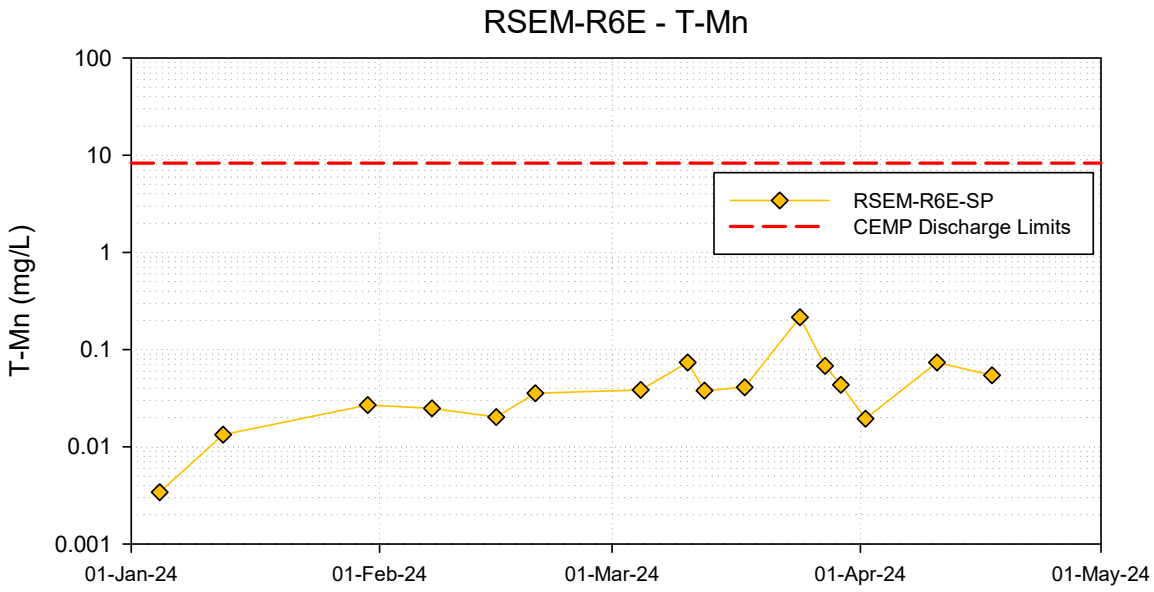

Figure 3-20: Concentrations of total manganese (Mn) for RSEM-R6 East compared to RSEM EOP Limits in 2024. T-Mn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

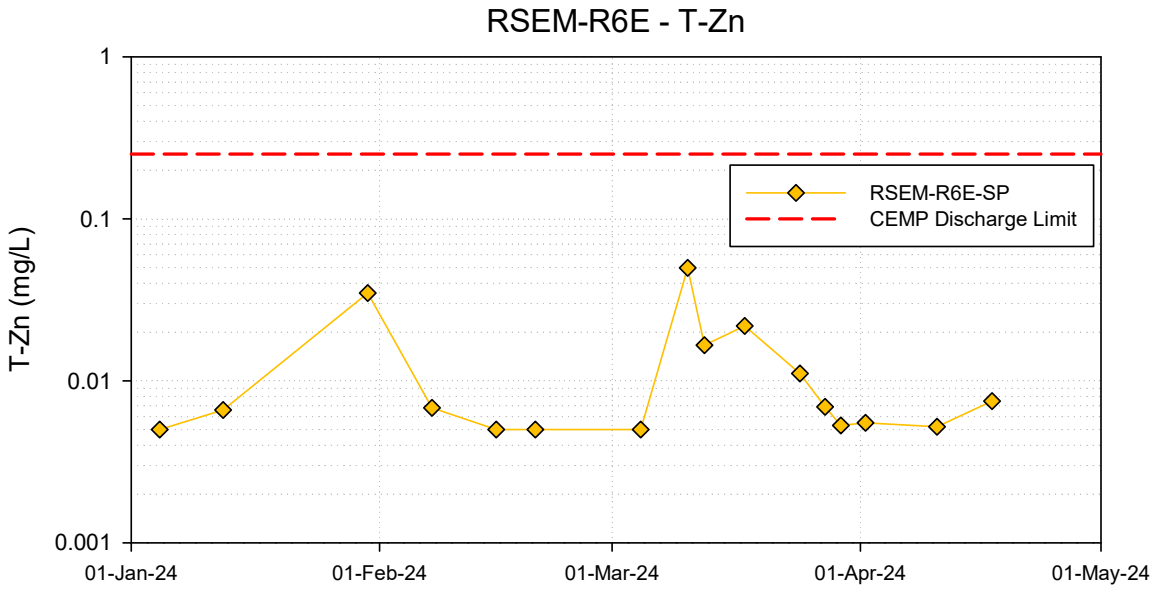

Figure 3-21: Concentrations of total zinc (Zn) for RSEM-R6 East compared to RSEM EOP Limits in 2024. T-Zn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

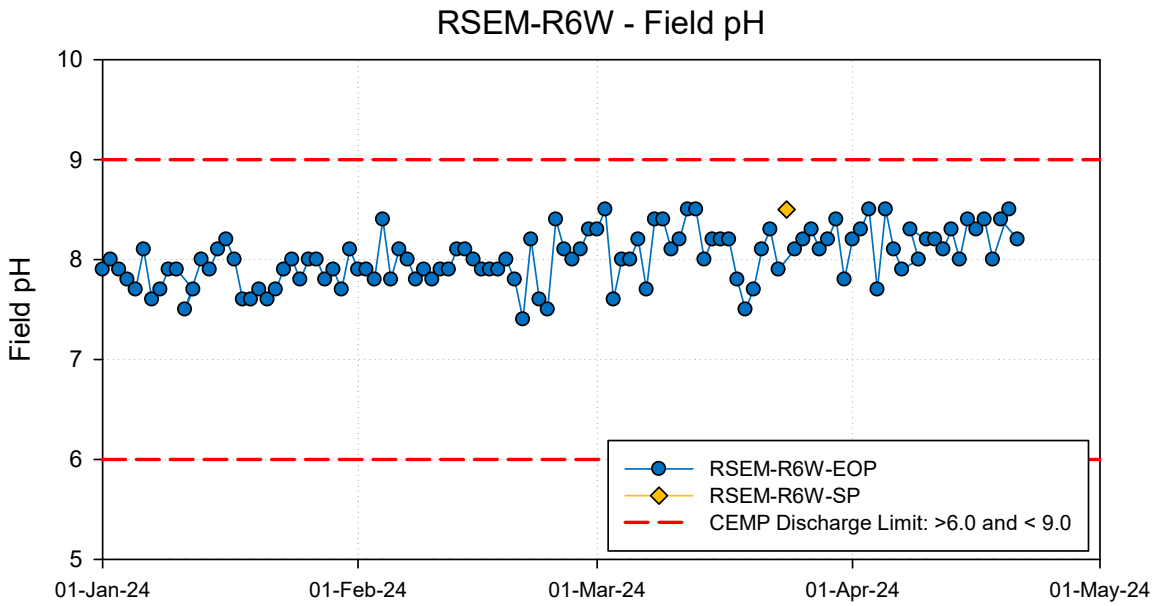

Figure 3-22: Time series profile for field pH in RSEM-R6 West compared to RSEM EOP Limits in 2024. EOP – End of Pipe; SP – Sediment Pond.

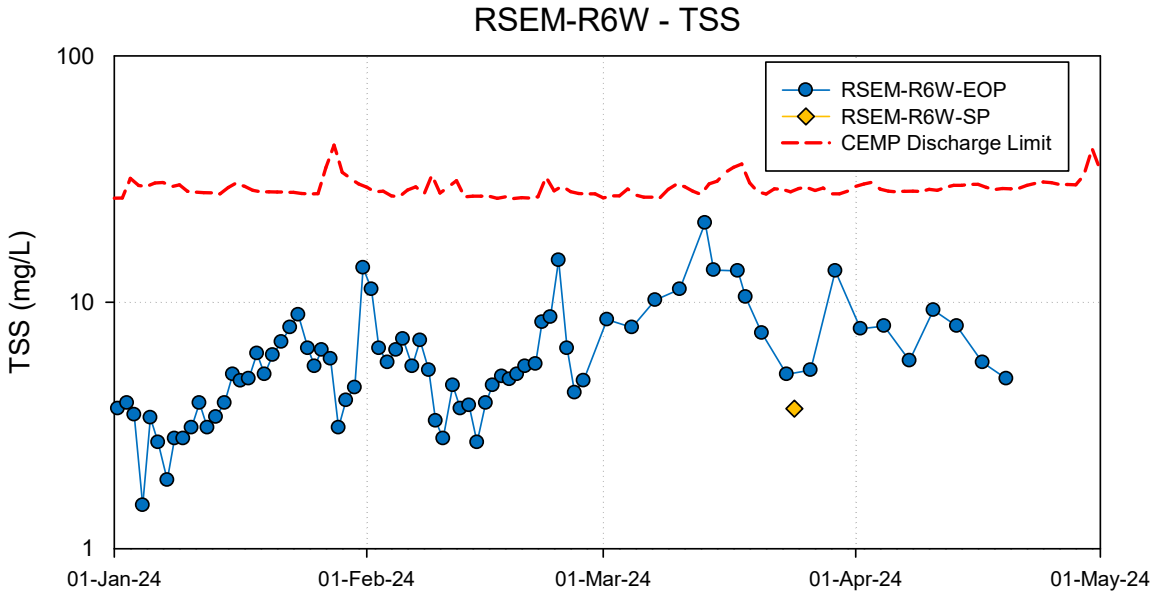

Figure 3-23: Time series profile for total suspended solids (TSS) in RSEM-R6 West compared to RSEM EOP Limits in 2024. TSS is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond.

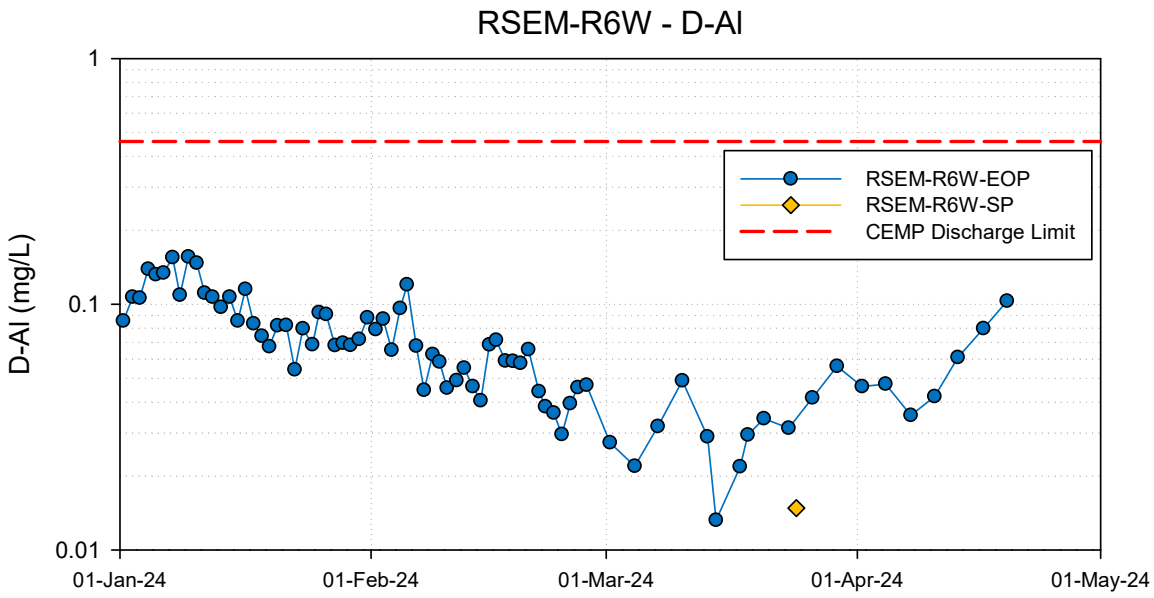

Figure 3-24: Concentrations of dissolved aluminum (Al) for RSEM-R6 West compared to RSEM EOP Limits in 2024. D-Al is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; D – Dissolved Concentrations.

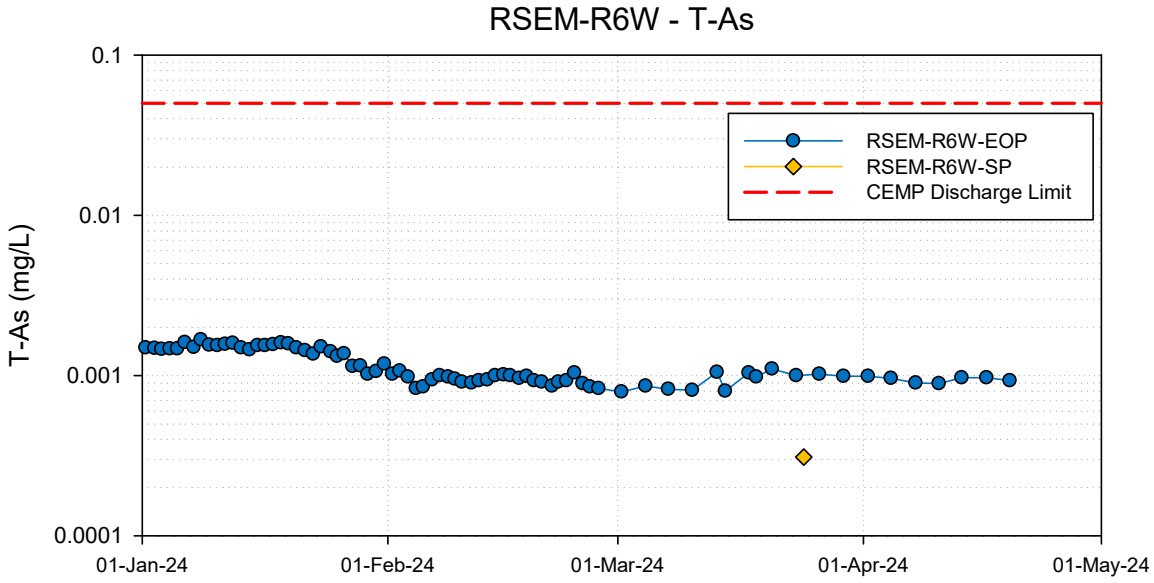

Figure 3-25: Concentrations of total arsenic (As) for RSEM-R6 West compared to RSEM EOP Limits in 2024. T-As is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

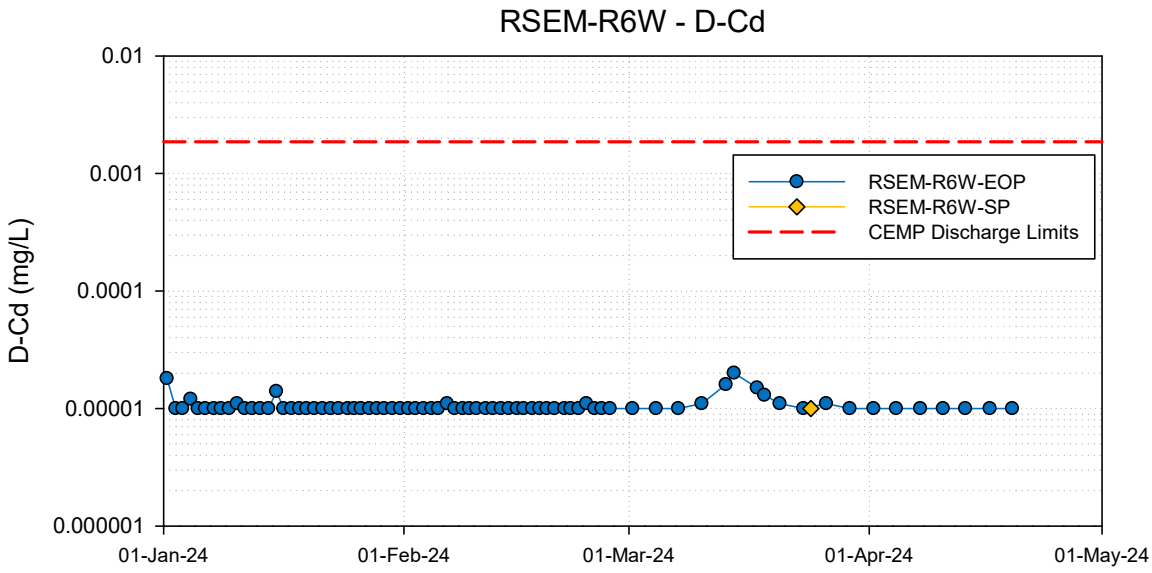

Figure 3-26: Concentrations of dissolved cadmium (Cd) for RSEM-R6 West compared to RSEM EOP Limits in 2024. D-Cd is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; D – Dissolved Concentrations.

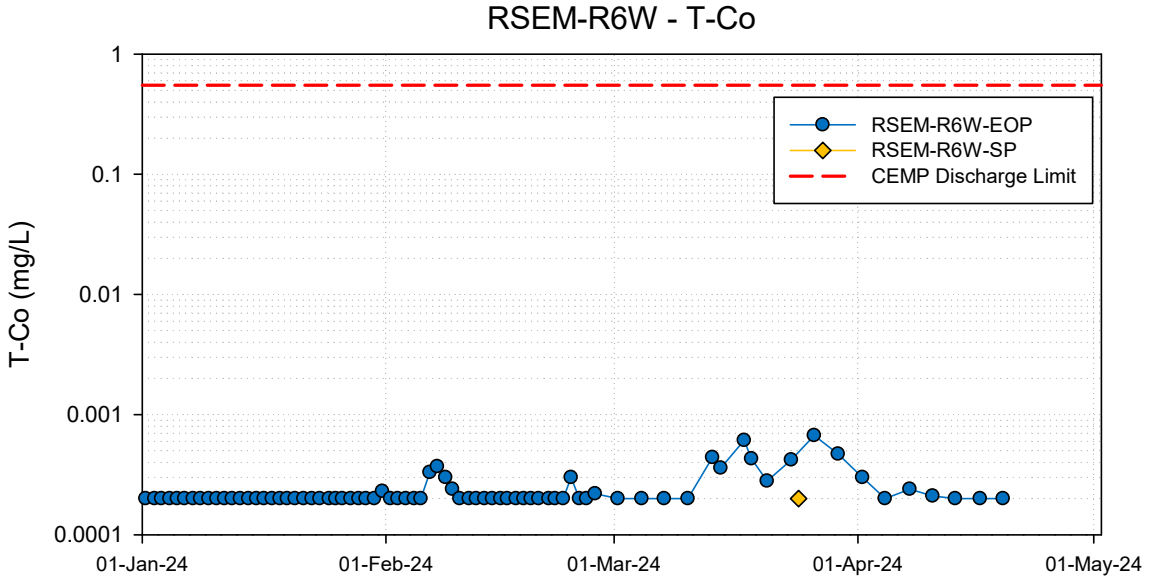

Figure 3-27: Concentrations of total cobalt (Co) for RSEM-R6 West compared to RSEM EOP Limits in 2024. T-Co is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

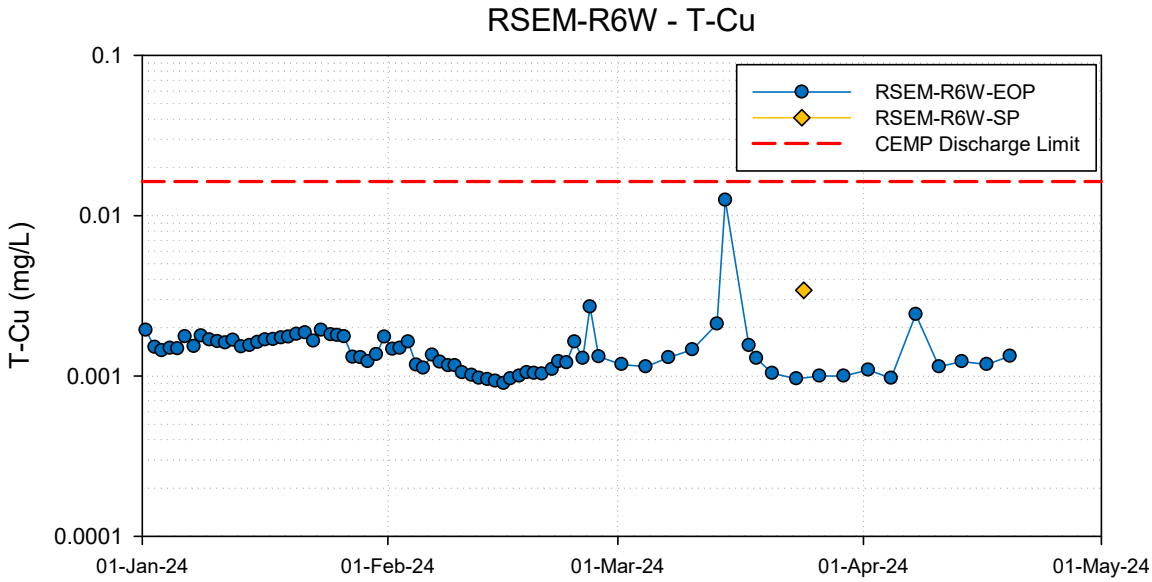

Figure 3-28: Concentrations of total copper (Cu) for RSEM-R6 West compared to RSEM EOP Limits in 2024. T-Cu is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

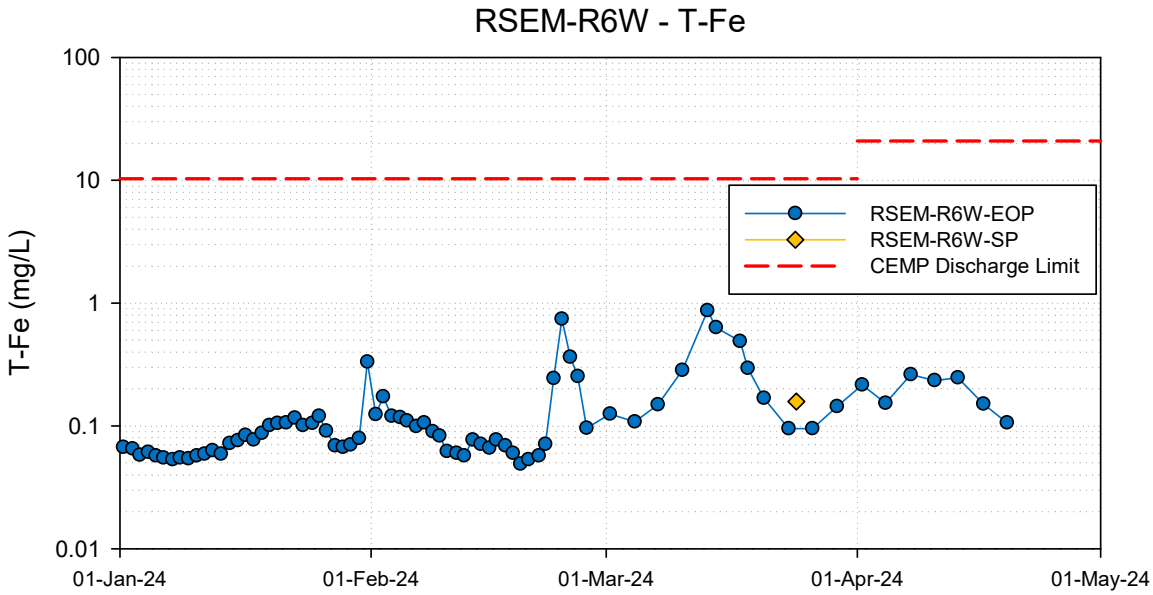

Figure 3-29: Concentrations of total iron (Fe) for RSEM-R6 West compared to RSEM EOP Limits in 2024. T-Fe is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

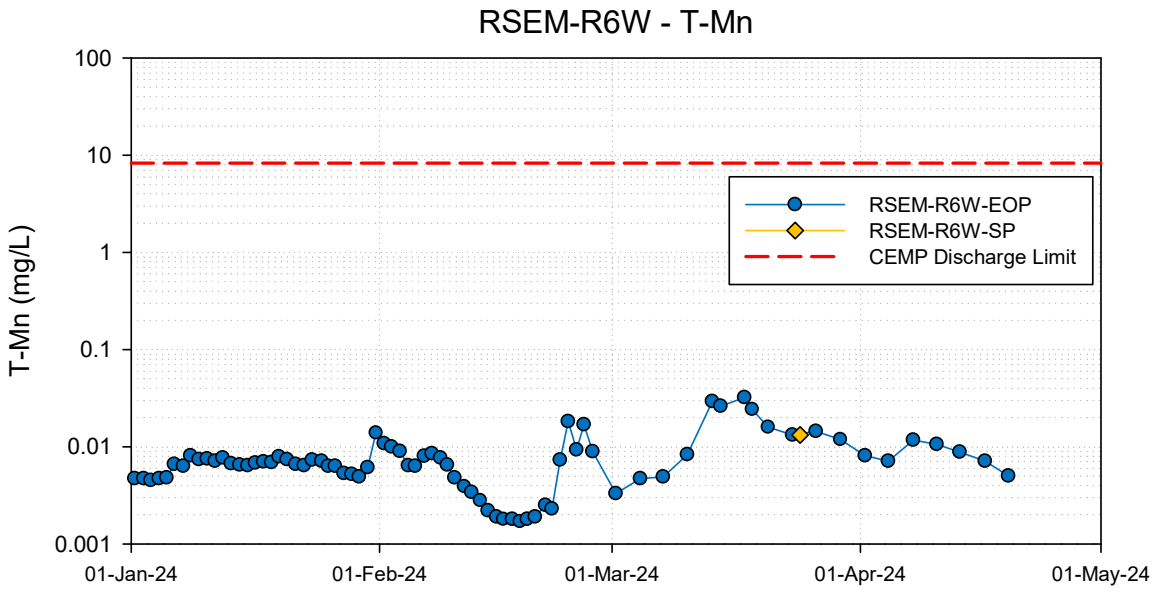

Figure 3-30: Concentrations of total manganese (Mn) for RSEM-R6 West compared to RSEM EOP Limits in 2024. T-Mn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

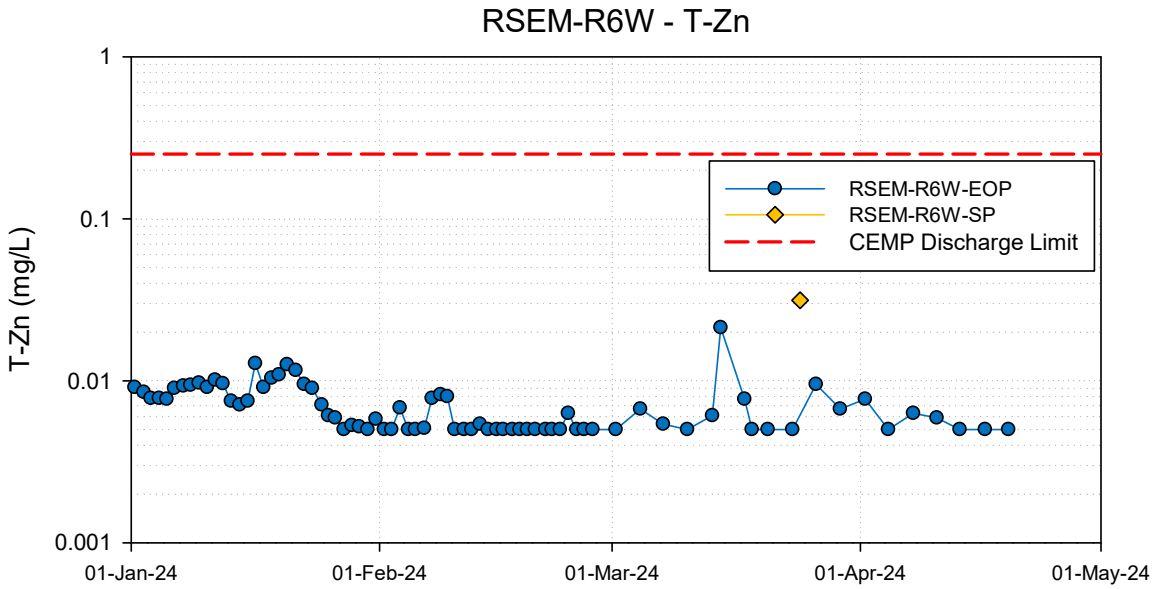

Figure 3-31: Concentrations of total zinc (Zn) for RSEM-R6 West compared to RSEM EOP Limits in 2024. T-Zn is plotted on a logarithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

3.2.4 Quality Assurance and Quality Control

A quality assurance / quality control (QA/QC) program has been developed and implemented for ARD/ML-related surface water quality monitoring for PRHP's Main Civil Works contract. It is intended to validate monitoring data and to identify potential deficiencies of the monitoring program.

QA/QC practices are conducted at various stages of sample collection through to analytical testing. Validated-clean sample bottles and preservatives are received from the analytical laboratory, and are stored in a controlled, clean environment prior to use. Calibration of field equipment (*i.e.*, hand-held and continuous data loggers) is regularly conducted using fresh calibration standards to ensure accurate in situ field readings.

Collection of field quality control (QC) samples including field blanks allows for evaluation of potential contamination from the sample collection method, handling, filtration, preservation and exposure to the environment. Additionally, field duplicates are collected as independent samples to characterize environmental variability and the precision of the entire sampling and analytical process. The field QA/QC program is described in Appendix 3-E and indicates that the general industry practice for field QC samples (*e.g.*, field blanks and duplicates) is that they constitute 10% of the samples collected (*i.e.*, one field QC sample per ten monitoring samples). However, the actual field QC frequency may vary due to the quantity of monitoring samples included with each sampling event or other considerations (BC ENV, 2013).

For 2024, a total of 30 QC samples were obtained (15 blanks and 15 duplicates) and 193 monitoring samples were collected as part of the PRHP ARD water quality monitoring program. QC samples therefore represented approximately 16% of the monitoring samples collected, indicating that the 2024 field QC program was implemented consistent to the general industry practice.

During 2024, water quality samples were submitted to the BV depot in Fort St. John and were tested at the BV laboratories in Burnaby and Calgary. Both lab locations are listed as qualified laboratories under the British Columbia Environmental Data Quality Assurance Regulation (EDQA). The BV labs use test methods accredited to the ISO 17025 standard for testing and calibration laboratories by the Standards Council of Canada (SCC). The Scope of Accreditation for the Burnaby and Calgary laboratories are included in Appendix 3-F and Appendix 3-G.

Once samples are submitted to BV laboratories, internal laboratory QC procedures are performed, which include analysis of method blanks, blank spikes, matrix spikes, reference standards and method duplicates at a minimum frequency for each analytical batch (*i.e.*,1 in 20 samples; Appendix 2-A). Results from these QC samples are not discussed in

this report; however, the data quality objectives for laboratory QC samples outlined in Appendix 2-A need to be met by the analytical laboratory before a final report is issued.

Laboratory reporting involves screening of water quality data against RSEM EOP limits and discharge exceedances to flag results where applicable. This approach has been useful to ensure rapid detection of potential exceedances in site or discharged water, and to trigger root cause investigation and regulatory notification processes.

A secondary data import screening system is applied on a weekly basis when laboratory data are transferred by Lorax into an EQWIN database. The following QC flags are included in the data transfer files, which are imported into the EQWIN database:

- Dissolved metals measurably higher than totals;
- Nitrite higher than nitrate;
- Calculated charge balance greater than 10%;
- Hold time exceedances; and
- Raised detection limits.

The occurrence of any of these flags prompts further action for closer review of the results or reanalysis of the samples. The EQWIN database is updated with all laboratory revisions to previously reported data, if data revisions are issued by BV.

As an additional quality control evaluation for field parameters, in situ field measurements collected by hand-held instrumentation and continuous in-pond data loggers are compared to corresponding laboratory analytical data on a weekly and quarterly basis.

The following sections include an evaluation of sample receipt temperatures, detection limits and hold time exceedances, and results for field blanks, field duplicates, total versus dissolved metals, in situ field measurements and in situ continuous in-pond measurements.

3.2.4.1 Sample Receipt Temperature Monitoring

Sample temperature is one of the factors which influence the stability of parameters to be tested, particularly for parameters for which chemical preservation is not possible. Therefore, environmental staff collect and store samples in coolers with icepacks and submit samples to the BV service depot in Fort St. John on the same day they are collected. The BV depot is open during regular business hours (Monday to Friday) and also offers a 24-hour secure drop-off service. The depot is an extension of the respective laboratories and assume custody of the samples upon receipt. After-hour sample submissions are processed (*i.e.,* received) on the next business day. Sample temperature is measured upon receipt and the BV depot ensures received samples are stored in accordance with the

temperature requirements set out by BC ENV (2013, 2020). For parameters included in the ARD water quality monitoring program, the optimal sample temperature range during shipping and upon receipt is between 0 to 10 °C, with the exception of total and dissolved metals which do not have a specified temperature requirement (BC ENV; 2013, 2020).

Review of the sample submission records indicate samples were appropriately packaged for submission to the laboratory and that icepacks were used for cooling in all submissions. Throughout 2024, 113 sample submissions were made to the BV service depot. Of these submissions, 104 (92%) met the sample temperature requirements and 9 (8%) were received with package(s) showing sample temperatures outside the optimal range. For the majority of instances where sample receipt temperatures were >10°C, temperatures were comparable to or lower than the temperature recorded during sample collection, and additionally, samples were received at the BV depot on the same day as sample collection.

Overall, the records indicate appropriate sample shipment protocols were followed, and therefore sample integrity is not considered to have been compromised between sample collection and receipt by the laboratory.

3.2.4.2 Detection Limit Screening

For this QC evaluation, the detection limits for reported results are compared to the standard detection limits issued by the BV lab. Detection limits are increased, for example, when a sample is diluted prior to analysis to eliminate interferences or to reduce a parameter concentration to within the instrument working range. The QA/QC evaluation included (1) an assessment of the frequency for raised detection limits in 2024 samples; and (2) screening to determine which parameters are most influenced by this occurrence.

Parameters exhibiting changes in detection limits are summarized in Table 3-13. Detection limits were most frequently increased for sulphate (9.8% of samples). Reported concentrations of sulphate were above detection limit values in all samples. Detection limits were raised in less than 5% of samples for all other water quality parameters. For the 2024 period, there were no parameters for which a non-detect result with a raised detection limit exceeded the RSEM EOP discharge limits. Changes in detection limits were overall not found to influence the analysis of non-detect results.

Table 3-13:
Number and Percentage of Samples Showing Raised Detection Limits per Parameter in 2024

Parameter or Grouping of Parameters	Number of Samples with Raised Detection Limits/Parameter	Total Number of Samples/ Parameter	% Samples with Raised Detection Limits
TSS	7	221	3.2%
Bromide	4	183	2.2%
Sulphate	18	183	9.8%
DOC	4	183	2.2%
TOC	4	183	2.2%
Ammonia	1	183	0.55%
Nitrite/Nitrate	5	183	2.7%
Nitrate	5	183	2.7%
Dissolved Metals*	7	183	3.8%
Total Metals*	8	183	4.4%

Notes: * Median counts are presented for the total and dissolved metals suite.

3.2.4.3 Hold Time Exceedances

PRHP makes every effort to have samples delivered to BV within recommended hold times, and in 2024 all samples met this criterion with one exception. Once delivered to the BV service depot, samples enter a queue for processing and analysis, and are sometimes analyzed outside of recommended hold times (*e.g.*, usually by one to four days). For 2024, the parameters most commonly analyzed by the laboratory outside the recommended hold times were TDS (18 samples), TSS (25 samples), turbidity (9 samples), nitrite (18 samples), nitrate (12 samples), nitrite-nitrate (18 samples), and orthophosphate (7 samples). Analysis of these parameters exceeded the respective hold times by an average of 1 to 4 days, which does not mean that the sample is compromised, but may increase the uncertainty of sample results.

Field measurement of pH is required within 15 minutes of sample collection (BC ENV, 2020). Analytical laboratory measurements of pH do not meet this requirement due to shipping constraints; therefore, analytical measurements are used for reference only. Field pH measurements are considered to best represent pH of the water at the time of sampling. Comparison of analytical and field pH measurements indicates analytical measurements are often biased low relative to the field values. It is speculated this may be due to carbon dioxide dissolution during transport and handing at the lab, which would reduce pH measured at the laboratory relative to the corresponding field measurement.

3.2.4.4 Field Blanks

A total of 15 field blanks were collected as part of the 2024 surface water quality monitoring program (Appendix 3-D). These data indicate good overall contamination control, with the majority of parameter values (>98%, not including pH, which is always detectable) in blank samples falling below the laboratory reported detection limit (RDL). In total, three parameter values out of the 1,380 measured (*i.e.*, 0.22%) were greater than the data quality objective (DQO) of 2-times the RDL. Parameters which showed concentrations above the DQO include bicarbonate and dissolved and total Hg. This anomaly may result from contributions associated with sampling supplies (*e.g.,* deionized water used for blanks, laboratory bottles, preservation reagents, gloves), the sampling procedure, sources from transportation and storage, or from sources at the laboratory. In general, these measurements do not alter the interpretation of environmental monitoring data and suggest good control of potential contamination sources to the water samples.

3.2.4.5 Field Duplicates

A total of 15 field duplicates were collected as part of the 2024 surface water quality sampling program (Appendix 3-C). Water quality results were generally similar between the majority of field duplicates. Table 3-14 shows the number of duplicates containing parameters with relative percent difference (RPD) values greater than the acceptability criteria of 20% and 50% (calculated only if the reported parameter value was greater than five-times the RDL in at least one of the sample duplicates). Approximately 2% of analyte pairs showed RPDs greater than 20%. Importantly, large variability is infrequent with less than 0.1% duplicate pairs exceeding the 50% RPD objective.

Parameters which showed multiple instances of RPDs greater than 20% include ammonia, and total Al, Fe, Mg, Mn and Na. No duplicate pairs showed RPD values greater than 50% for parameters for which RSEM EOP discharge limits are approved (pH; TSS; dissolved Al and Cd; total As, Co, Cu, Fe, Mn and Zn), (Table 3-14 and Table 3-15).

Discrepancies between monitoring and duplicate samples overall reflect sample variability over the course of the monitoring program and likely reflect the non-homogeneous distribution of TSS. Variability may also be introduced by contamination (as previously noted in field blanks) and imprecision in laboratory measurements. The RPD results indicate that the monitoring data generally met the field duplicate precision objectives for all parameters, and any measured variability is not expected to alter the interpretation of the water quality results.

Table 3-14:
Comparison of 2024 Duplicate RPDs Greater than DQO by Parameter

Parameter	RPDs >20%	RPDs >50%
Turbidity	1	-
TSS	1	-
T-Hardness	1	-
$N\text{-}NH_3$	5	1
$N\text{-}NO_3$	1	-
$N\text{-}NO_2\_NO_3$	1	-
D-Al	1	-
D-Cu	1	-
T-Al	3	-
T-Ca	1	-
T-Fe	4	-
T-K	1	-
T-Mg	2	-
T-Mn	2	-
T-Na	2	-
T-S	1	-
T-U	1	-

Notes: RPD- Relative Percent Difference

Table 3-15:
Summary of Field Duplicate RPDs Greater than 50%

Station Code	Collection Date	Lab ID (Sample)	Lab ID (Duplicate)	Parameter	Units	Concentration			RPD %
						RDL	Sample	Duplicate	
RSEM-R6W-SP	24-Mar-24	CLG644	CLG645	$N\text{-}NH_3$	mg/L	0.015	0.027	0.138	135

Notes: RDL- Reported Detection Limit; RPD- Relative Percent Difference

3.2.4.6 Total versus Dissolved Metals

Dissolved and total metal pairs are evaluated for possible contamination that may occur during the filtration process. Samples for total metals analysis are field-acidified and undergo acid digestion at the lab, while dissolved metal samples are lab-filtered prior to acidification. By definition, total metals analysis account for all dissolved and particulate-bound metals present in a sample; therefore, a dissolved metal concentration should not exceed the corresponding total metal concentration. In practice, due to measurement error, dissolved metal concentrations are occasionally reported as higher than total metal concentrations; therefore, the field duplicate DQOs of 120% and 150% are applied to flag outlier and suspect data points, respectively.

Out of 5,425 total and dissolved parameter pairs compared in the 2024 dataset, four dissolved metal values (for Cu, K, Se, and Sr), representing <0.1% of the paired measurements, were more that 120% greater than the corresponding total metal concentrations. There were no samples with dissolved parameter values greater than 150% of the total metal concentration. Instances of dissolved concentrations exceeding total values were indeed rare and did not influence the interpretation of results.

3.2.4.7 In Situ Field Measurements

In situ field measurements are typically collected with hand-held probes at the same location and time during which an analytical sample is collected (Appendix-3-B). These measurements are valuable for capturing the general chemistry of site water without potential artifacts that can be introduced during collection and transport of samples to the lab (*e.g.* CO_2 dissolution in the case of pH). In 2019, it was confirmed that in situ field pH values at EOP would be used to evaluate pH compliance with the RSEM EOP limit in order to meet the 15-minute hold time for analytical pH measurements.

Comparison of in situ field data to laboratory analytical results collected during the same time period serves as an independent check of field measurements. An in situ field value that is measurably different than the analytical value may be indicative of variability due to specific environmental conditions that occur during the in situ field measurement, technical error with the hand-held logger, or potentially chemical changes that occur following sample collection.

With the exception of pH, in situ field data are generally consistent with corresponding analytical measurements. In Table 3-16, a positive median difference suggests that field measurements tended to be biased higher than analytical results, while a negative median difference suggests field measurements tended to be biased lower. The results indicate that pH and conductivity mostly showed a positive bias for field measurements relative to analytical results. By comparison, turbidity values show that field measurements tended to be biased lower relative to analytical results across RSEM locations (Figure 3-32).

In 2024, in situ field pH measurements at the sediment ponds were elevated by 0.75 to 1.6 units above analytical pH measurements (Table 3-16). This is consistent with the increased dissolution of CO_2 and a subsequent decrease in sample pH observed in laboratory samples (relative to field pH) as a result of exposure to aerated conditions in a sample bottle prior to taking an analytical reading in the lab. This finding shows that in situ field measurements are particularly meaningful for evaluating pH compliance in alkaline waters, as an analytical laboratory reading taken hours or days following sample collection might not capture an exceedance event.

Median in situ field conductivity and turbidity values show a relative percent difference of up to 17% and 19% relative to their respective analytical measurements in the RSEM ponds. Turbidity measurements are generally more prone to variability. Differences between in situ field measurements and analytical test results may be attributed to variability in suspended solid characteristics within the sample and differences in the analytical instrumentation used for testing. Overall, field and lab turbidity values are generally comparable indicating that the field turbidity measurements are suitable for informing TSS management decisions.

Table 3-16:
Comparison of 2024 Field and Analytical Measurements for pH, Conductivity and Turbidity

Station ID	Annual Median Difference*	Annual Median Relative Percent Difference**
pH	s.u.	
RSEM-R6W-SP/EOP	0.75	10%
RSEM-R6E-SP	1.0	14%
RSEM-L6-SP	1.6	20%
Conductivity	µS/cm	
RSEM-R6W-SP/EOP	65	17%
RSEM-R6E-SP	89	12%
RSEM-L6-SP	-5.0	8%
Turbidity	NTU	
RSEM-R6W-SP/EOP	-0.017	17%
RSEM-R6E-SP	-0.083	19%
RSEM-L6-SP	0.37	11%

Notes:
* Median difference between corresponding *in situ* field measurements (results reported by PRHP staff from hand-held data loggers) and analytical measurements. Difference was calculated by subtracting the analytical value from the *in situ* field value.
**Median absolute relative percent difference between corresponding *in situ* field and analytical measurements. Relative difference was calculated by dividing the difference between corresponding *in situ* field and analytical measurements, by the average of the corresponding *in situ* field and analytical measurements.

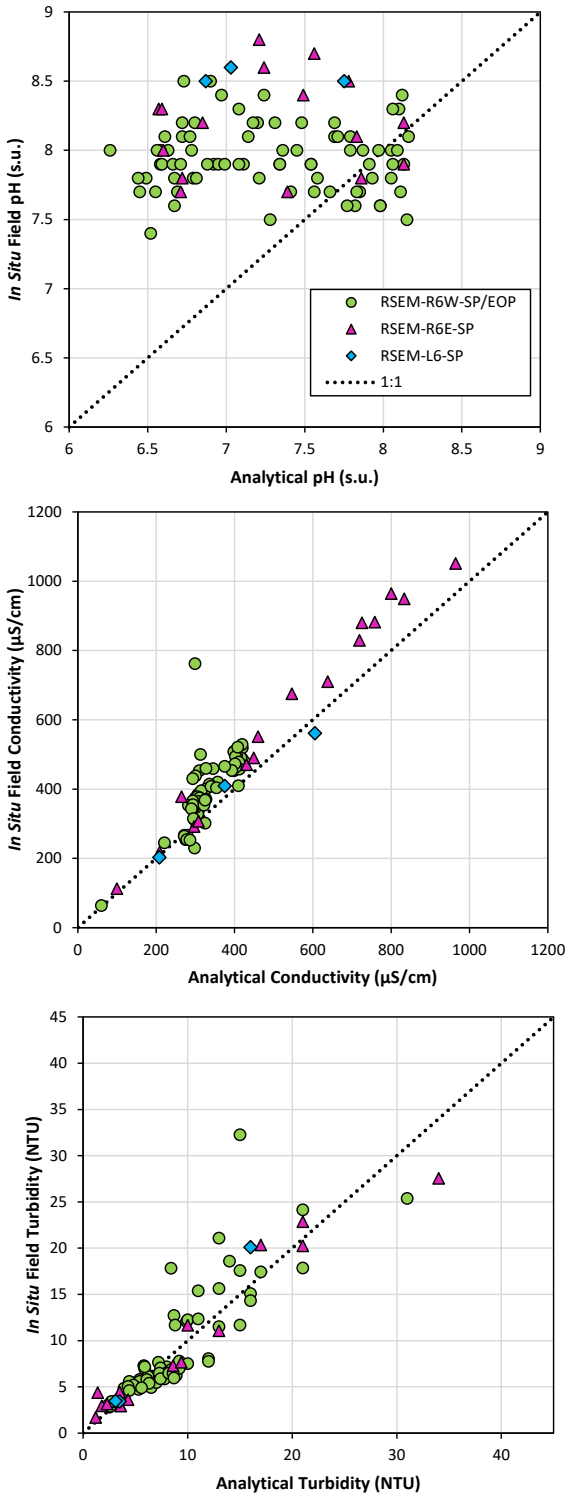

Figure 3-32: In situ field versus analytical measurements for pH, electrical conductivity and turbidity for 2024. (Note individual samples with measurements outside the typical range are not shown in the figure above.)

3.2.4.8 In Situ Sonde Measurements

In situ continuous sonde measurements for pH, conductivity and turbidity are monitored using a fixed in-pond sonde probe which regularly logs a data point every 15 minutes (Appendix 3-A). In comparison to in situ field measurements which are typically collected at the same location and time as an analytical end-of-pipe sample is collected, in situ sonde measurements are taken at a fixed point located approximately 5 to 10 metres from the discharge pipe inlet at a depth of approximately 0.3 m. The static deployment of the sonde can result in disagreement of water quality measurements compared to the end of pipe location due to spatial differences and potential temporal lags between the time that the sonde encounters a water plume to the time the clarified surface layer discharges through the end of pipe location.

As an independent check of sonde readings, sonde pH measurements are compared to field pH measurements that most closely correspond to the time period of collection. Field pH measurements rather than analytical pH measurements are used for comparison as they more accurately describe end of pipe water quality at the time of sampling (as described in the previous section). Sonde conductivity and turbidity measurements are compared to analytical results using the sonde readings that most closely correspond to the sample collection time recorded for an analytical sample.

In situ sonde and field pH results show reasonable agreement for the R6E pond, and greater variability for the R6W pond (Table 3-17). There is inconsistent bias in sonde readings relative to field measurements for the two ponds (Figure 3-33). Divergence in measurements can be attributed to heterogeneity in water quality within the pond as represented by the sonde results compared to the end of pipe where field measurements are collected.

Sonde and analytical conductivity results diverged from a 1:1 relationship in both R6 ponds, showing median RPDs as high as 55% (Table 3-17). At the R6W pond, poor agreement in conductivity measurements was observed during the end of February and mid to end of March (Figure 3-33). Variability in some results may be attributed to biases in the sonde calibration and/or sonde deployment issues.

Sonde turbidity measurements in 2024 show a median relative percent difference ranging between 28% to 161% (Table 3-17). Sonde readings show a positive bias relative to analytical measurements, with measurements variably diverging from the 1:1 relationship (Figure 3-33). Elevated sonde turbidity readings may be associated with the sonde location, with sensors at approximately 0.3 m depth in the pond water column, upstream of the inlet to the discharge pipe. Only the surface layer of the pond passively spills into the discharge pipe, it is likely the surface layer has lower turbidity than deeper layers due to particle

settling. The sonde probe is located within the interior of the pond and is more likely to detect sediment plumes which may extend to the sonde, but not to the discharge pipe intake. These findings suggest that sonde turbidity measurements are not a reliable indicator of turbidity in the pond discharge.

Table 3-17:
Comparison of 2024 *In Situ* Continuous and Analytical Measurements for pH, Conductivity and Turbidity

Station ID	Annual Median Difference*	Annual Median Relative Percent Difference**
pH	s.u.	
RSEM-R6W-SP/EOP	-0.02	2.9%
RSEM-R6E-SP	0.08	1.7%
Conductivity	µS/cm	
RSEM-R6W-SP/EOP	-40	15%
RSEM-R6E-SP	-274	55%
Turbidity	NTU	
RSEM-R6W-SP/EOP	0.84	28%
RSEM-R6E-SP	19	161%

Notes:
*Median difference between corresponding *in situ* continuous measurements and *in situ* field (pH) or analytical (conductivity and turbidity) measurements. Difference was calculated by subtracting the *in situ* field (pH) or analytical (conductivity and turbidity) measurements from the *in situ* continuous value.
**Median absolute relative percent difference between corresponding *in situ* continuous *in situ* field (pH) or analytical (conductivity and turbidity) measurements. Relative difference was calculated by dividing the difference between corresponding *in situ* continuous and *in situ* field (pH) or analytical (conductivity and turbidity) measurements, by the average of the corresponding *in situ* continuous and *in situ* field (pH) or analytical (conductivity and turbidity) measurements.

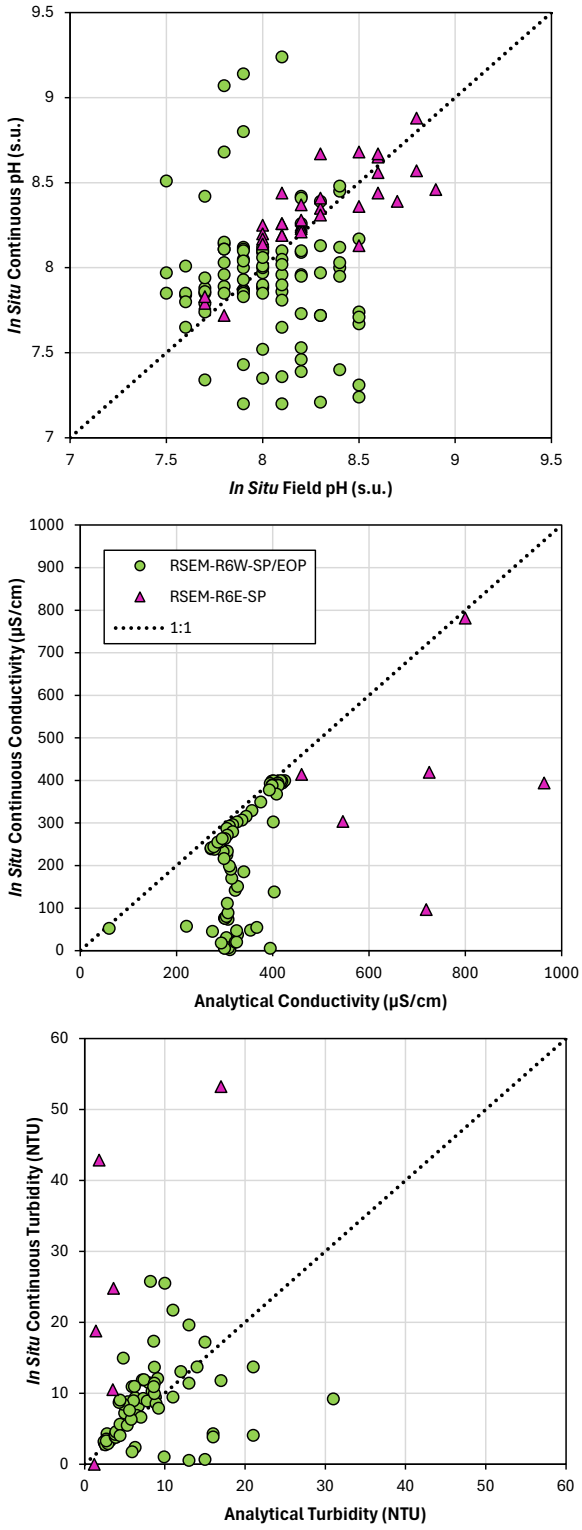

Figure 3-33: *In situ* sonde versus field measurements for pH, and sonde versus analytical measurements for electrical conductivity and turbidity for 2024. (Note individual samples with measurements outside the typical range are not shown in the figure above.)

3.2.4.9 Conclusions

Overall, the QA/QC results for the 2024 sampling program provide confidence in the water quality data for analytical and field (hand-held and continuous) measurements. Minor issues associated with sample representativeness are noted but are not expected to measurably alter the interpretation of sampling data with some exceptions. Field measurements were generally in agreement with corresponding analytical results, with a few exceptions. Conversely, measurements from in situ sondes were found to diverge from corresponding analytical end of pipe measurements, likely due to the spatial difference from where the analytical sample is collected and the sonde deployment. Therefore, EOP field turbidity measurements rather than in situ sonde readings are appropriate for use in the field evaluation of EOP TSS concentrations.

4. Key Findings

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4. Key Findings

The purpose of this section is to provide additional information that is required by the BC Hydro ARD/ML Management Plan or has been specifically requested by BC Hydro. It includes, a summary of mitigation measures that were employed in 2024, a ML/ARD risk evaluation, a summary of exceedances of project-specific discharge limits that occurred in 2024, and an estimation of metal loads discharged to the Peace River.

4.1 Mitigation

Given the onset of ARD/ML in exposed PAG material on both the Left Bank and Right Bank, mitigation has been implemented to minimize effects on surface water and groundwater quality. Potential environmental effects from ARD/ML are mitigated primarily through three strategies. The first strategy is to minimize generation of ARD/ML by covering weathered PAG material with unweathered PAG or NPAG material and ultimately flooding and permanently saturating the PAG bedrock. The second strategy that is employed is to minimize the volume of PAG-contact water that is generated, by diverting runoff upgradient of areas that contain PAG material and collecting water that contacts PAG material. The third strategy is to treat the residual volume of water for which contact with PAG material is unavoidable. These key mitigation measures are discussed in more detail below.

4.1.1 Material Management

The timely excavation or cover of weathered material is a key mitigation strategy where PAG material has been exposed or deposited. Placement of the final NPAG cover on exposed PAG material to minimize potential ARD/ML was conducted at RSEM Area R5B, Earthfill Dam, RSEM Area R5A and RSEM Area L5 prior to 2024. In November 2024 the reservoir was filled and the PAG material in the PAG-containing RSEM areas was flooded, which completed the long-term PAG cover management strategy at the site.

4.1.2 Water Management

This section summarizes water movements that are undertaken to segregate potentially ARD/ML influenced PAG contact water from other contact waters (*i.e.,* NPAG contact water and PAG contact water that is not ARD/ML influenced) within PAG containing construction areas. Transfers within and between Project area catchments are conducted to improve water management efficiency and to ensure contact waters are routed through an appropriate treatment facility prior to discharge. This is achieved with a network of sumps, ponds, baker tanks, ditches and pipelines, and active water management (*i.e.,* pumps, hoses

and water trucks). Water quality monitoring data are used to identify potentially ARD/ML influenced water that requires treatment using the WTP. RSEM sediment control ponds are used to treat suspended sediments (*i.e.,* TSS).

The general water management objectives are to:

- Segregate ARD/ML influenced and other water that must be treated by the WTP;
- Maximize storage capacity for surges of ARD/ML influenced PAG contact water associated with heavy runoff from rainfall or snowmelt; and,
- Minimize the number of treatment facilities (*i.e.,* sediment control ponds) that require daily management.

A summary of water transfers in 2024 to PAG containing RSEM sediment control ponds, and to the WTP Pre-Treatment Pond, from Left Bank and Right Bank catchment areas, is provided in Table 4-1. The source areas and destinations of relocated waters are also shown in Figure 4-1. Notable details regarding water transfers are summarized below:

- The water management approach was to direct contact water to the appropriate facility for discharge. From January 1 to April 22 contact water managed by PRHP was directed to the Pre-Treatment Pond, through the WTP to the RSEM R6 Sediment Control Ponds which, in turn, discharge to Peace River.
- The LBEX-B2 pipeline to RSEM L6 pond was decommissioned early Janaury 2024, and operation of the RSEM L6 area was susequently transferred to BC Hydro.
- Flows from the RBDT were the dominant input to the Pre-Treatment Pond in 2024.
- The RSEM R6 East Pond was dewatered to the WTP in March 2024.

Table 4-1:
Summary of Contact Water Transfer to PAG Containing RSEM Sediment Control Ponds and the WTP Pre-Treatment Pond January 1 to April 22, 2024.

Receiving Facility	Type of Water and Source Area
RSEM R6 East Sediment Control Pond	Runoff from SBIAR Ditch
RSEM R6 West Sediment Control Pond	WTP Sludge Pond (Cell 3) discharge
WTP Pre-Treatment Pond	RBDT dewatering, RSEM R6 East Pond

Notes:
RBDT=Right Bank Drainage Tunnel.
PAG-contact is defined as contact water with a possible ARD influence.
Non-contact is defined as runoff, construction water and groundwater that are not ARD influenced.

629,000 630,000 631,000

6,230,000

6,229,000

N

LBEX-B2 sump dewatered to Pre-Treatment Pond

Sludge Pond Cell 3

RSEM R6W

RSEM R6E

WTP

Pre-Treatment Pond

RSEM R6E Pond to RSEM R6W Pond

RBDT to Pre-Treatment Pond

629,000 630,000 631,000

LEGEND

PAG and Non-PAG Contact Water Collection Areas

Note: Site C aerial imagery collected September 2023 to July 2024

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Metres*

1:10,000

0 100 200 300 Metres

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LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2024 Annual Report

TITLE: Overview of PAG and Non-PAG Contact Water Transfer to the MWT and Between Catchment Areas

PROJECT #: A416-7	*FIGURE:* 4-1

P:\@Drafting\SiteC\Drafting Figures\APRX\Final Report.aprx Fig_4-3_Water Transfer

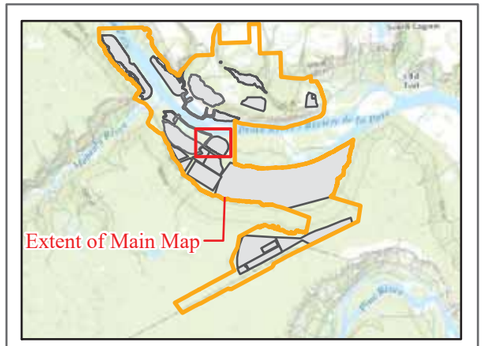
4.1.3 Water Treatment

PRHP operated the WTP until April 19, 2024, when control of the treatment plant was returned to BC Hydro. Water treatment was implemented for contact waters from PAG containing excavations and RSEM deposition areas. Treatment was used to mitigate contact waters influenced by ARD (*i.e.,* low pH and dissolved metals), cement products such as shotcrete (*i.e.*, elevated pH) and suspended sediments (*i.e.,* TSS). Different systems were used for each type of influence. Cement-influenced alkaline contact waters were generally treated within the source area using carbon dioxide to reduce pH to a circum-neutral level. Waters possibly influenced by ARD were directed to the WTP, and suspended sediments were removed by the RSEM sediment control ponds. This section describes the WTP that is used to treat ARD influenced PAG contact waters.

The mobile water treatment facility (MWTF) was commissioned by PRHP in 2018 Q3 with the pre-treatment and metal precipitation facilities located at the west end of the Approach Channel and RSEM Area R5B. In late April 2020 the MWTF was relocated to RSEM Area R6 in advance of the transition to Phase 2 of the Project. The MWTF was operated by Ensero Solutions from 2018 Q3 through July 7th, 2022. During 2022 Q2, PRHP constructed and commissioned a self-operated WTP metal precipitation facility that replaced the MWTF on July 8th, 2022, when the PRHP self-operated WTP commenced operations (Lorax, 2022) and continued until April 22, 2024, when operation of the WTP was transferred to BC Hydro.

The overall treatment system shown in Figure 4-2 consists of three facilities: an influent storage pond, the metal precipitation facility, and a sludge settling pond, and is designed for continuous treatment of influent flows that range between approximately 3 to 10 L/s. The "WTP" acronym generally refers to the overall treatment system; however, for the following discussion and the figures used in this report, WTP is defined as the intermediate facility where the metal precipitation reagents are mixed with the water being treated.

ARD influenced PAG-contact water is directed by pumping or trucking to the Pre-Treatment Pond for storage and from which water is withdrawn for treatment. Inside the WTP, the treatment process adds a lime slurry to the influent to increase pH into the target range of 9.8 – 10.2, which precipitates dissolved metals as insoluble metal hydroxides. A flocculant is added to facilitate the coagulation and settling of the freshly precipitated solids. Klearwater Hydrofloc 403 is normally used and HaloSource Haloklear BHR-P50 is used when TSS is elevated in WTP influent. The resulting slurry mixture is transferred from the WTP to the Sludge Pond for polishing (*i.e.*, settling solids) and final pH adjustment.



Legend

Direction of Flow

Notes: Aerial Imagery of RSEM Area R6 collected June 25, 2024. Additional Site C aerial imagery collected between S eptember 2023 and July 2024.

0 50 100 Meters

1:3,000

DATE SAVED: Jan 02, 2025 **REVIEWED:** NM

DRAWN BY: AL **VERSION:** 1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2024 Annual Report

TITLE:

WTP Layout in the RSEM Area R6W Catchment

PROJECT #: A416-7 *FIGURE:* 4-2

Coordinate System: *NAD 1983 UTM Zone 10N* ***Datum:*** *North American 1983* ***Units:*** *Meter*

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The Sludge Pond is comprised of three cells (Cells 1, 2 and 3) and the gelatinous lime sludge produced by the treatment process primarily accumulates in Cell 1. The clarified water is adjusted to circum-neutral pH by sparging carbon dioxide into the final cell (Cell 3) of the sludge pond from where treated water passively discharges to the RSEM R6 West sediment control pond along a lined channel. A portion of the discharge channel passes under a road crossing through a zinc plated corrugated steel culvert. Sludge is periodically removed from the Sludge Pond by vacuum truck and is dewatered in RSEM Area R5A for long-term storage in the stockpile.

In 2024 water from the RBDT was directed to the WTP Pre-Treatment Pond (AK Pond) and passed through the WTP untreated except for the addition of flocculant prior to the sludge pond. The WTP was operated March 18 to April 6. The configuration of the WTP system components are illustrated in Figure 4-2.

The Sludge Pond was not dredged prior to April 22, 2024, due to the minimal accumulation of lime sludge in Cell 1. Discharge from the Sludge Pond at station MWTF-SLP-R6 was consistently observed from January 1 to April 22, 2024, and were primarily due to the RBDT outflows following flooding of the RBCD (Powerhouse) early November 2023. The RBCD (Powerhouse) and RBDT waters were speculated to be Peace River infiltration waters and met RSEM EOP limits. Therefore, after November 7, 2023, and through to April 22, 2024, the RBDT waters were directed to the Pre-Treatment Pond and were pumped at approximately 10 L/s through the WTP untreated (except for the addition of flocculant and final pH adjustment in Cell 3) and discharged at station MWTF-SLP-R6 to the RSEM R6 West sediment control pond.

Due to the inputs of RBDT waters to the WTP, and the mode of WTP operation January 1 to April 22, 2024, the water quality at station MWTF-SLP-R6 generally did not represent treated WTP effluent because the lime addition process was generally inactive, except March 18 to April 6 when the WTP was operated.

The WTP influent and effluent concentrations, and removal of parameters with RSEM EOP limits are summarized in Table 4-2. A total of three samples pairs were collected that represent operation of the WTP. (March 20 and 31, and April 4). Results from the effluent station MWTF-SLP-R6 are compared to the corresponding samples of Pre-Treatment Pond (AK Pond) water quality in Table 4-2. Limited reduction of target metals is expected at the relatively low metal concentrations observed in the influent and this is demonstrated by the results summarized in Table 4-2. For metal parameters detected in the influent (Al, As, Cu, Fe and Mn) the concentration reduction ranged from 9% to 81%, indicating that partial removal occurred at the low influent concentrations, as expected, and that the WTP process, when activated, was effective for treating target metals.

Table 4-2:
WTP Metal Removal Efficiency for Key Parameters When the WTP was Operated (March 18 to April 6)

Parameter	Units	Median Influent (Pre-Treatment Pond; n=3)	Median Effluent (MWTF-SLP-R6; n=3)	% Removal	RSEM EOP Discharge Limit
pH-lab	pH	8.9	7.53	- [1]	6.0 – 9.0
TSS	mg/L	12.8	9.1	28.9%	BC Water Quality Guidelines
T-Al	mg/L	1.34	0.31	76.9%	-
D-Al	mg/L	0.23	0.0907	60.6%	0.46
T-As	mg/L	0.00135	0.00106	21.5%	0.05
D-As	mg/L	0.00107	0.0008	25.2%	-
T-Cd	mg/L	0.000018	< 0.00001	44.4%	-
D-Cd	mg/L	< 0.00001	< 0.00001	- [2]	0.00186
T-Co	mg/L	0.00096	0.00021	78.1%	0.55
D-Co	mg/L	< 0.0002	< 0.0002	- [2]	-
T-Cu	mg/L	0.00195	0.0012	38.5%	0.0163
D-Cu	mg/L	0.00086	0.00076	11.6%	-
T-Fe	mg/L	0.79	0.164	79.2%	20.9 (April – June) 10.3 (July – March)
D-Fe	mg/L	< 0.005	< 0.005	- [2]	-
T-Mn	mg/L	0.0344	0.0065	81.1%	8.29
D-Mn	mg/L	< 0.001	0.0015	- [2]	-
T-Zn	mg/L	0.0055	< 0.005	9.1%	0.251
D-Zn	mg/L	< 0.005	< 0.005	- [2]	-

Notes:
Non-detect results were assigned the detection limit value for statistical calculations (0.00001, 0.0002, 0.005, 0.001 and 0.005 mg/L for D-Cd, D-Co, D-Fe, D-Mn and D-Zn, respectively).
[1] Percent reduction is not calculated for pH.
[2] The influent median values for D-Cd, D-Co, D-Fe, D-Mn and D-Zn are non-detect results, therefore percent removal was not calculated for these parameters.

4.2 ML/ARD Risk Levels

The ARD risk assigned to project facilities is presented in this section. Annual reports through the previous stages of the project presented a risk matrix developed using the annual monitoring data to plan strategic implementation of water management and treatment, recognizing that implementing more robust water management, or procurement, construction and commissioning of a water treatment facility requires some lead time. The risk assignments in this 2024 report are intended to identify areas where the final design configurations have been achieved by PRHP and additional ARD management planning for the final stages of Project construction that may be considered by others.

4.2.1 Left Bank

On the Left Bank, the final design configurations of RSEM Area L5 and L5 Extension were achieved by PRHP prior to 2024 and the final configuration of L5 Garbage Creek was completed by BC Hydro in 2024. The implementation of the planned water cover by flooding of the reservoir in 2024 has reduced the risk of ARD/ML from these facilities by permanently saturating the PAG material placed there. The primary ARD/ML mitigation mechanism associated with flooding relates to the reduced availability of dissolved oxygen in the pores of flooded wastes, which promotes the chemical stability of sulfide minerals.

Control of RSEM Area L6 was relinquished by PRHP to BC Hydro in 2024 with a cover of NPAG material over the RSEM area and the sediment pond still in operation. RSEM Area L6 will not be flooded by the reservoir and ARD/ML risk is managed through the compaction and covering of the RSEM area with NPAG material to limit water and oxygen ingress.

4.2.2 Right Bank and Earthfill Dam

Areas of PAG placement and excavation on the Right Bank and Earthfill Dam were no longer under control of PRHP in 2024. The implementation of a water cover by flooding the reservoir in 2024 has reduced the risk of ARD/ML from RSEM Area R5A, Approach Channel, RSEM Area R5B and Zone 8 of the Earthfill Dam by permanently saturating the PAG material placed there.

The temporary PAG stockpiles present within the R6 catchment at Area 20/21, Batch Plant, and Area 23 were relocated by BC Hydro in 2024 and no longer present an ARD/ML risk in this area.

4.3 Water Quality Exceedances

These were no exceedances of discharge limits from RSEM sediment pond end-of-pipe in 2024.

4.4 Metal Loads

Calculation of metal loading to the Peace River on a weekly basis is a requirement of section 7.3.2 of Appendix E of the CEMP. Daily loads for each RSEM sediment pond from which water was discharged were calculated by applying the concentration measured in the daily EOP grab sample to the total volume of water discharged on that day, as recorded by the pond's flow meter. Daily loading estimates were then summed for each month to obtain the monthly load discharged to the Peace River, providing an estimate of the total load discharged from the Project site.

The only sediment pond which discharged water from January through April 2024 was RSEM-R6W. There was no discharge from other sediment ponds. The metal loads discharged from the Right Bank are summarized, followed by a summary of the metal loads discharged from Site C in 2024 in relation to the metal loads carried by the Peace River.

4.4.1 Right Bank

The discharge from the RSEM-R6W sediment pond are summarized in Table 4-3 below. There was no discharge from any other sediment pond.

Table 4-3:
Monthly Total Metal Load Discharged from
RSEM-R6W Sediment Control Pond – January through April 2024

Parameter	Estimated Load Discharged to Peace River (kg)				
	January	**February**	**March**	**April**	**Total**
TSS	174	226	406	116	769
Cl	761	540	638	217	1420
F	4.00	3.33	4.07	1.39	8.95
D-SO_4	1010	1030	1460	481	3010
N-NH_3	3.03	2.54	13.9	1.30	17.9
N-NO_2	0.549	0.956	0.874	0.352	2.21
N-NO_3	8.43	5.51	5.52	1.49	12.8
T-Sb	0.0235	0.0190	0.0206	0.00787	0.0484
T-As	0.0482	0.0353	0.0341	0.0149	0.0860
T-Cd	0.000359	0.000440	0.000632	0.000169	0.00127
T-Co	0.00691	0.00833	0.0138	0.00352	0.0260
T-Cu	0.0556	0.0464	0.0894	0.0207	0.159
T-Fe	3.06	4.83	10.7	3.24	19.3
T-Pb	0.00700	0.00796	0.00921	0.00315	0.0207
T-Mn	0.228	0.231	0.574	0.135	0.961
T-Mo	0.365	0.257	0.259	0.120	0.646
T-Se	0.0203	0.0186	0.0189	0.00749	0.0457
T-Ag	0.000686	0.000756	0.000753	0.000315	0.00185
T-Zn	0.280	0.206	0.324	0.0908	0.629
D-Al	3.23	2.19	1.26	0.884	4.47
D-Cd	0.000356	0.000380	0.000457	0.000157	0.00101
D-Co	0.00686	0.00771	0.00992	0.00315	0.0211
D-Cu	0.0356	0.0291	0.0578	0.00944	0.0976
D-Fe	0.171	0.189	0.207	0.0787	0.482
D-Zn	0.214	0.193	0.252	0.0787	0.539

4.4.2 Comparison with Metal Loads Carried in Peace River

To provide context for RSEM pond loading, average monthly metal loads for Cd, Cu, and Zn in the Peace River were calculated using available information on Peace River flows and water quality at station PR-2.81 (formerly PR-3.88) to provide benchmarks to which metal loading from Site C (above) can be compared. The dissolved, rather than total, metal fraction measured at PR-2.81 was used in the calculation to minimize the potential influence of high turbidity water on the metal loading values. These loads are presented in Table 4-4 below. Flow data is available from January through April with a total of 26 samples available in the dataset for these months.

Table 4-4:
Estimated Mean Monthly Load (kg) in Peace River (station PR-2.81) for Dissolved Cd, Cu and Zn

Parameter	JAN	FEB	MAR	APR
	n=3	n=2	n=7	n=14
D-Cd	43.8	43.0	62.7	595
D-Cu	2,510	2,660	3,200	14,500
D-Zn	6,720	8,070	8,880	46,900

Notes: n = the number of water quality samples for a given month, data range is from April 2007 to December 2023. Values reported as less than the detection limit were set equal to the detection limit value for loading calculations.

The analysis is considered adequate to provide approximate 'order-of-magnitude' estimates of metal loads carried in the Peace River in the vicinity of the Site C Clean Energy Project, for the purpose of providing some preliminary context for the metal loads discharged from RSEM area sediment ponds. Overall, the metal load contributed from the RSEM-R6W sediment pond in 2024 was very minor relative to the metal loads carried by the Peace River.

A comparison of the estimated total annual load of Cd, Cu and Zn discharged from Site C is compared with the estimated annual load of Cd, Cu and Zn carried by the Peace River at Station PR-2.81 is included Table 4-5 below.

Table 4-5:
Estimated 2024 Annual Load Discharged from Site C and Carried by Peace River (station PR-2.81) for Dissolved Cd, Cu and Zn

Parameter	Estimated Annual Load Discharged from Site C (From All Sediment Control Ponds) in 2024 (kg)	Estimated Annual Load Carried by Peace River in 2023 (kg)	Estimated Annual Load Discharged from Site C as Proportion of Annual Load Carried in Peace River (%)
D-Cd	0.00101	745	0.000136%
D-Cu	0.0976	22,870	0.000427%
D-Zn	0.539`	70,570	0.000764%

5. Summary

PEACE RIVER
HYDRO PARTNERS

5. Summary

The ARD/ML mitigation measures employed at site have been effective in limiting the frequency of non-compliant discharges to the Peace River. Observations from the 2024 monitoring program are summarized in this section.

5.1 Geochemical Monitoring

Bedrock that is exposed or excavated as part of the Main Civil Works Contract is expected to be PAG, with most units expected to become acidic within one year of disturbance if not mitigated. However, the combined ARD/ML mitigation measures that include material placement, water management and water treatment has maintained the water quality of water released from the RSEM Area sediment ponds to the Peace River within discharge limits. Due to the completion of RSEM Areas in 2023 and limited bedrock disturbance by PRHP in 2024, no ARD/ML monitoring was completed in 2024.

Sampling and testing of accumulated sediment from sediment control ponds and sumps was conducted to guide the appropriate disposal of these materials. No contamination was identified in sediment samples collected in 2024 from the sediment ponds in Area 11, Area 13, Area 25 and the Phase 3 Crusher settling pond.

5.2 Surface Water Quality Monitoring

The results of surface water quality monitoring have been used to better understand and predict the timing, magnitude and duration of ARD/ML on surface water runoff from the construction site, to measure the effectiveness of mitigation measures, and to verify compliance with RSEM EOP discharge limits and BC WQG. The surface water quality monitoring program is supported by robust QA/QC procedures and includes an intensive sampling and analysis from a dynamic set of stations across the site, as well as from RSEM Area L6 and R6 sediment ponds and end of pipe discharges.

Discharge monitoring confirmed EOP discharge limits were not exceeded in 2024. Water quality monitoring in the Area 30 sediment pond and the Septimus beaver pond confirmed the protection of water quality in this area.

The surface water quality monitoring program has generally been effective. Overall, the QA/QC procedures are well implemented and provide confidence in the monitoring data. The high frequency sampling and laboratory analyses are reliable to allow trends in the RSEM area sediment ponds, and within upgradient catchments, to be identified, and the magnitude and duration of potential effects from ARD/ML to be verified.

5.3 Mitigation

Mitigation measures that are implemented onsite to minimize the exceedance of EOP discharge limits due to ARD/ML include:

- Material management by excavating weathered bedrock and covering weathered rock in RSEM and Earthfill Dam PAG deposition areas until the final water cover is established,
- Water management to contain or transfer water that may be influenced by ARD/ML, and
- Water treatment to adjust pH and remove total and dissolved metals.

Material management is the primary ARD/ML mitigation strategy that has been implemented on site and final NPAG covers had been placed on the major PAG-containing RSEM areas and storage locations prior to 2024. In November 2024 the reservoir filling was completed and the PAG material in RSEM Area R5B, Earthfill Dam, RSEM Area R5A and RSEM Area L5 were flooded, which completed the long-term PAG cover management strategy.

Water management is a secondary mitigation strategy. Surface water quality is monitored and the results are used to inform water transfers within and between Project area catchments to ensure contact waters are routed appropriately prior to discharge. Contact water that is not anticipated to meet RSEM EOP discharge limits is retained and transferred to the Pre-Treatment Pond and treated by the WTP prior to discharge.

The WTP was operated by PRHP from March 18 to April 6. There was very little accumulation of sludge in Cell 1 of the WTP sludge pond and therefore sludge was not removed in 2024. As of April 22, 2024, PRHP was no longer the prime contractor for the WTP.

The implementation of various erosion and sediment control measures at site has reduced the frequency of TSS-related exceedance of EOP discharge limits from RSEM Area sediment ponds since the monitoring program was initiated in autumn 2016.

6. Closure

PEACE RIVER
HYDRO PARTNERS

6. Closure

This report was prepared for the use of PRHP, which has the right to reproduce, use and rely upon this ARD/ML Management 2024 Annual report in planning, construction and reporting for the Site C Clean Energy Project. The report was prepared by the Lorax technical personnel listed below based on information provided by PRHP site personnel, observations during site visits and test results reported BV analytical laboratory. Please contact the undersigned should you have any questions or concerns or require additional information in support of this work.

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PEACE RIVER
HYDRO PARTNERS

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List of Appendices

PEACE RIVER
HYDRO PARTNERS

Appendix 1-A: 2024 RSEM Sediment Control Pond Daily Discharge

PEACE RIVER
HYDRO PARTNERS

month	Row Labels	RSEM-R6E	RSEM-R6W	RSEM-L6	units = L/s	
1	2024-01-01		10			from field data
1	2024-01-02		11.315			
1	2024-01-03		10.61860465			
1	2024-01-04		12.00666667			
1	2024-01-05		11.642			
1	2024-01-06		7			from field data
1	2024-01-07		10			from field data
1	2024-01-08		11.14213115			
1	2024-01-09		11.39159574			
1	2024-01-10		11.30791667			
1	2024-01-11		11.43336842			
1	2024-01-12		10.68663158			
1	2024-01-13		10.75114583			
1	2024-01-14		10.50566176			
1	2024-01-15		10.16232044			
1	2024-01-16		11.04104167			
1	2024-01-17		11.33900826			
1	2024-01-18		10.82157895			
1	2024-01-19		12.77468085			
1	2024-01-20		13.70548387			
1	2024-01-21		14.440625			
1	2024-01-22		14.94115789			
1	2024-01-23		14.8616092			
1	2024-01-24		14.71621053			
1	2024-01-25		14.68747368			
1	2024-01-26		14.67670213			
1	2024-01-27		14.696			
1	2024-01-28		16.84776596			
1	2024-01-29		20.74673684			
1	2024-01-30		19.20585106			
1	2024-01-31		17.3312766			
2	2024-02-01		16.89043011			
2	2024-02-02		15.42053191			
2	2024-02-03		17.76305263			
2	2024-02-04		17.84297872			
2	2024-02-05		17.29215054			
2	2024-02-06		16.2475			
2	2024-02-07		16.03468085			
2	2024-02-08		16.19655914			
2	2024-02-09		13.42926316			
2	2024-02-10		9.587578947			
2	2024-02-11		9.825106383			
2	2024-02-12		12.28097826			
2	2024-02-13		17.00578947			
2	2024-02-14		16.94602151			
2	2024-02-15		16.71393617			
2	2024-02-16		17.13042553			
2	2024-02-17		13.85076923			
2	2024-02-18		9.689361702			
2	2024-02-19		17.46473118			
2	2024-02-20		17.47189474			
2	2024-02-21		17.5251087			
2	2024-02-22		17.25505263			
2	2024-02-23		14.57234043			
2	2024-02-24		13.9844086			

month	Row Labels	RSEM-R6E	RSEM-R6W	RSEM-L6	units = L/s	
2	2024-02-25		13.88924731			
2	2024-02-26		13.66365591			
2	2024-02-27		13.56789474			
2	2024-02-28		13.7046875			
2	2024-02-29		14.21336842			
3	2024-03-01		11.28126316			
3	2024-03-02		10.31421053			
3	2024-03-03		10.59553191			
3	2024-03-04		10.69446809			
3	2024-03-05		10.53536842			
3	2024-03-06		11.94548387			
3	2024-03-07		15.54223404			
3	2024-03-08		15.5546875			
3	2024-03-09		15.46638298			
3	2024-03-10		14.82691489			
3	2024-03-11		13.89130435			
3	2024-03-12		16.14925532			
3	2024-03-13		17.08936842			
3	2024-03-14		20.15290323			
3	2024-03-15		19.02075269			
3	2024-03-16		15.81042105			
3	2024-03-17		14.46260417			
3	2024-03-18		14.30231579			
3	2024-03-19		14.11145833			
3	2024-03-20		13.975			
3	2024-03-21		13.17148936			
3	2024-03-22		13.15215054			
3	2024-03-23		10.83522222			
3	2024-03-24		3.256421053			
3	2024-03-25		15.41810526			
3	2024-03-26		16.1240625			
3	2024-03-27		15.83602151			
3	2024-03-28		15.68			
3	2024-03-29		15.55548387			
3	2024-03-30		15.51263158			
3	2024-03-31		15.51684783			
4	2024-04-01		15.22637363			
4	2024-04-02		14.92189474			
4	2024-04-03		12.16053763			
4	2024-04-04		8.231521739			
4	2024-04-05		2.479047619			
4	2024-04-06		5.645263158			
4	2024-04-07		8.756595745			
4	2024-04-08		9.384842105			
4	2024-04-09		9.693978495			
4	2024-04-10		9.913191489			
4	2024-04-11		12.13589474			
4	2024-04-12		13.58354839			
4	2024-04-13		13.21141304			
4	2024-04-14		10.47585106			

Month (m^3)	RSEM-R6E	RSEM-R6W	RSEM-L6
2024-Jan	0	34,283	0
2024-Feb	0	37,797	0
2024-Mar	0	37,651	0
2024-Apr	0	12,599	0
Total	0	122,330	0

Note: The April flows only include April 1-14, when PRHP was prime of L6 and R6.

Appendix 2-A: Bureau Veritas Analytical QA/QC Program

PEACE RIVER
HYDRO PARTNERS

Bureau Veritas Laboratories

Quality Assurance & Quality Control

COR FCD-00180 / 4

Move Forward with Confidence

BUREAU VERITAS

Table of content

1.0 Laboratory Company Profile

Founded over 45 years ago, Bureau Veritas Laboratories is the market leader in analytical services and solutions to the energy, environmental, food and DNA industries. Our 2,200 dedicated employees proudly lead the industry in depth of technical and scientific expertise and serve customers through the only national network of laboratories. In processing over 2.4 million samples and generating in excess of 43 million results annually, we skilfully combines efficiency and customer service with rigorous science and uncompromising quality management. We are committed to success with responsibility – to its stakeholders, to its communities, and to the environment.

Our Mission is clear - We are a science company that is passionately committed to delivering good science through exceptional service.

A major focus is analytical services for an exhaustive list of environmental contaminants. Solid wastes, effluents, potable water, receiving waters, ground waters, soils, sediments, stack emissions, ambient air, plant, animal and fish tissues are analysed for everything from pH to Dioxins.

We provides these services to a wide range of customers, in North America and over 20 foreign countries. Our clients include consulting engineers, industry, businesses, all levels of government as well as private individuals.

Our laboratories function as a tight network operating under a single Quality Management System, utilizing the strengths of each and working together to ensure customer requirements are met. All major laboratories provide the full range of environmental testing services using a uniform Quality System and IT infrastructure to deliver a standardized high quality service across the country. In addition, certain locations have special areas of expertise, such as seawater analysis at our Burnaby and Bedford facilities and High Resolution Dioxin analysis in our Mississauga and Ville St-Laurent facilities.

Operating within one Laboratory Information and Quality System across Canada provides uniform report formats, management performance measurements, turnaround time measurements, corrective action management, and a number of other key performance indicators making us a reliable partner.

2.0 Quality Program

Bureau Veritas Laboratories currently employs 40 full-time Quality Assurance (QA) staff. This group reports to the Senior Quality Assurance Manager, whose responsibility it is to ensure consistency of approach and program independence from operations. The QA team is strengthened through a web-based document control and management system that ensures consistent formats while minimizing routine administrative tasks. Authorized staff have immediate secure access to all corporate and individual laboratory SOPs and support documentation.

The Quality Program is designed to comply with or exceed the data quality objectives of Industry, Canadian Regulators, United States EPA and the International Standards Organization (ISO). The QA team is assisted in performing audits with the help of many trained "internal auditors" that are composed of operations and support services personnel. This brings many benefits to the customer and to our company. These benefits include improved client and accreditation audits, increased communication between groups within our company, greater variety of work for staff and increased understanding of ISO/IEC 17025 customer and our own quality requirements.

The keys to the Quality Program are Prevention and Verification.

2.1 Prevention through Quality Assurance

Extensive control charting practices ensure that analyses with biases or which are potentially out of control are recognized early so that potential problems can be rectified before exceedences occur. Comprehensive internal audits of methods, Quality Control (QC) practices, sample analyses, and quality system elements confirm adherence to Standard Operating Procedures. Regular system reviews and a structured Continuous Improvement Program combine to provide the strongest possible Quality System.

Evaluated monthly, score carding of key performance indicators such as Proficiency Testing Performance, Corrective Action Reports, Nonconformance Reports and Method Audits, drives the Program, defining successes and highlighting areas for improvement. We also have a corporate Management of Change procedure whereby substantive changes in the laboratory are adequately reviewed, communicated and documented.

2.2 Training

Upon hire, personnel are required to participate in the Corporate New Employee Orientation Program (NEOP) where they are trained on the quality management system, Ethics & Integrity, and the Environment, Health and Safety program. In addition to their initial training, they are provided technical training, delivered by designated individuals (supervisor or senior analyst level) with comprehensive working knowledge and experience in the area they are training. To ensure full traceability and auditability, training records for all employees are maintained in our online

document control system and in the employee's personal training file, which is maintained by his/her supervisor.

Analyst competence is essential to the production of accurate data. Prior to beginning work in the laboratory, technicians and analysts are required to thoroughly understand the QA objectives and the relevant SOP. This, in conjunction with hands-on training from a senior analyst, ensures successful transfer of information is effective. Demonstration of acceptable performance on laboratory control samples or reference materials by the analyst is required for final certification to perform the method. Ongoing demonstration of capability is provided through blind performance evaluation samples, audits and annual recertification.

2.3 Customer Complaints

Formal responses are required to any customer complaints, discrepancies, deficiencies or quality issues. The deficiencies are recorded in an electronic database and cascade to the supervisor and the analyst for immediate attention. An acknowledgment of the deficiency is required within a specified timeframe accompanied by an action plan, which must include any corrective measures taken along with results of these actions. A follow-up report on the same form must be completed and returned documenting the effectiveness of the improvements implemented. If closure of the issue is not done in the required timeframe the issue is escalated to the next management level promoting prompt resolution of the issue. The effective response to client issues is score-carded as a key performance indicator.

2.4 Ethics and Data Integrity

All employees are required to undergo annual ethics training and to read and sign an Ethics and Data Integrity Agreement annually, promising to not knowingly commit an unethical act or through inaction, allow a coworker to do so. Senior management reinforces the program through presentations, discussion and written tests.

2.5 Verification through Quality Control

Public safety, environmental impact and major financial decisions are routinely based on our analytical data. Legal data defensibility is essential to these activities and is verified through a comprehensive quality control program. The protocols and procedures described below are routinely employed and are described in detail in our Standard Operating Procedures (SOPs) for analysis, laboratory practice and staff training. The quality assurance objectives are translated into specific requirements that are written into all standard operating procedures.

2.6 Quality Control Protocols

Each project is conducted under a defined quality control program. Our standard quality control protocols meet or exceed the requirements of Canadian and United States regulators. In addition

to this, most large projects have a defined Quality Assurance Project Plan (QAPP) that includes all required data quality objectives. The following table outlines the quality control practices routinely employed in all laboratories. Additional elements or different limits may be used on a project specific basis.

Elements of Quality Control		
Element	**Frequency**	**Limits***
Field QC		
Sample Containers	Precleaned to EPA Spec's	Non Detect
Traveling Blanks	Project Specific	<RDL
Field Duplicates	Project Specific	Project Specific
Run QC, All Methods		
Method Blanks	1 in 20 or 1/batch	<RDL
Blank Spikes	1 in 20 or 1/batch	CCME or Provincial limits
Matrix Spikes	1 in 20 or 1/batch	CCME or Provincial limits
Duplicates Analysis	1 in 20 or 1/batch	± 20%-50%
Real Time Control Charts	Key parameters, all tests	± 3 SD, trend analysis
Inorganic QC		
Instrument Calibration	Multipoint Daily	>0.995 correlation
Calibration Verification	Daily (second source)	± 10% of initial
Continuing Cal. Verification	Every 20 samples & at end	± 10% of initial
Standard Reference Material	Daily – As Required (if available)	SRM limits
Organic QC		
Instrument Calibration	Multipoint	RSD ± 20%
Calibration Verification	Daily (second source)	± 20% of initial
Continuing Cal. Verification	Verified every 12 hr	RF or RRF ± 30% of initial
Surrogate Standards	All samples, all organic analyses	CCME or Provincial limits
Internal Standards (IS)	All Samples (method specific)	-50% to +100% of IS in Cal'n
Standard Reference Material	As required (if available)	SRM limits
External QC		
Interlaboratory Comparisons	>50/year	Top 10% overall, >95% acceptable
Double Blind Program	Annually (Inorganic and Organic where applicable)	Statistical Limits
Internal QC Checks	As required	In house limits

* Typical QC acceptance criteria. Values may vary for specific tests.

2.7 Accreditation

Bureau Veritas Laboratories hold several accreditations granted by Canadian and United States regulatory organizations. The intent of accreditation is to document through laboratory audit, check samples, and round robin studies, each laboratory's conformance to ISO/IEC 17025, an internationally accepted quality system. The accreditation process is also an integral part of our philosophy of Continuous Improvement. The following organizations have endorsed our quality

system. These endorsements are granted on a facility specific basis. In addition, many tier one industries have audited and approved our laboratories.

- Canadian Association for Laboratory Accreditation (CALA)
- Standards Council of Canada (SCC)
- Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC)
- National Environmental Laboratory Accreditation (NELAC)
- U.S. Environmental Protection Agency Contract Laboratory
- American Industrial Hygiene Association (AIHA)
- Various US States

2.8 Proficiency Testing

Our laboratories participate in many national and international proficiency testing and double blind check sample programs. As per ISO 17025 requirements, we are required to successfully participate in proficiency testing programs for tests included on our scope of accreditation. We go above and beyond these minimum requirements. Some of the programs we are currently participating include:

- Corporate Double Blind Program
- Canadian Association for Laboratory Accreditation (CALA)
- AWAC
- CMPT
- NWRI (Env. Canada)
- NAPT
- WUCMUC
- State of New York – Environmental Laboratory Approval Program

2.9 Double Blind Program

The Double Blind Program was implemented to measure the quality of data and service provided to customers. Proficiency testing samples are required as part of standard accreditation programs (ISO 17025), however they do not adequately simulate lab performance for client samples since the lab knows it is being tested. The double blind program involves using a sample from an accredited proficiency-testing provider and having the sample “disguised” as a client sample so the lab is completely unaware their performance is being evaluated. The sample is sent to our laboratories as a regular sample, which upon completion is assessed by the Quality Assurance Department for turnaround time (TAT), data accuracy and traceability. This program best simulates lab performance for real client samples.

2.10 Customer Service / Project Management

The quality process extends beyond accreditations, methods and staff expertise. It includes the management system for all activities from project awards to follow-up customer satisfaction

surveys. The heart of the process is the Project Management (PM) team, the largest laboratory customer service team in Canada. This team consists of dedicated professionals whose responsibility it is to ensure the customer gets the tests meeting their requirements, when promised. Project managers are also aware of current and emerging regulations and thus are able to assist customers in choosing the correct testing protocol.

Supporting the PM team is our unique Laboratory Information Management System (MaxxLIMS). MaxxLIMS tracks and monitors all project information and provides a direct link between analysis and reporting. Employing barcodes, MaxxLIMS monitors each sample's progress through the lab as it is received and logged, extracted, analyzed and the resulting data is approved, validated and reported. Comprehensive sample tracking, combined with instrument capacity and staff commitment to customer service, allows clients to be confident in our ability to deliver quality data on time. Customer feedback and PM process insight has driven a number of innovations, mostly made possible through MaxxLIMS.

- Client website access to approved data
- Client website access to project status
- On line bottle orders
- Sample integrity forms
- Custom electronic and hard copy deliverables packages.
- Regulatory reports
- Consolidated invoicing
- Project summary performance reports
- Real time, automated sample log-in and data checks

2.11 The Quality Promise

The Quality Pyramid summarizes our quality promise to our customers. Each component of the pyramid strengthens the overall customer experience and ultimately converges at a single point, the promise to deliver accurate, defensible data to our clients.

Appendix 2-B: Dredgeate Laboratory Results

PEACE RIVER
HYDRO PARTNERS

REPORT FILTERS	Area 11 - SP
Received Date From	07/21/24
Received Date To	08/14/24
Projects	,416-1,7007 ROAD 268
Jobs	Multiple
Samples	CSR331
Analytes	Multiple
Criteria 1	
Criteria 2	

Site Location	SITE C
Project #	
Site #	
PO #	34974
COC#	89209
Bureau Veritas Job #	C459339
Sample ID	Area 11-SP Dredgeate
Bureau Veritas Sample ID	CSR331
Matrix	Soil
Sampled By	AZ
Sampling Date	08-01-24
Sampling Time	3:00 PM

Report Group	*Parameter Name*	*Criteria 1*	*Criteria 2*	*Units*	*Result*	*DL*
	Leachable Initial pH of Sample			pH	9.26	N/A
	Leachable pH after HCl			pH	1.77	N/A
	Leachable Final pH of Leachate			pH	6.24	N/A
	Soluble (2:1) pH			pH	8.27	N/A
	Nitrogen (N)			%	0.11	0.01
Glycols by GC-FID	Extractable (Water) Ethylene Glycol			mg/kg	<10	10
Glycols by GC-FID	Extractable (Water) Diethylene Glycol			mg/kg	<9.0	9
Glycols by GC-FID	Extractable (Water) Triethylene Glycol			mg/kg	<10	10
Glycols by GC-FID	Extractable (Water) Propylene Glycol			mg/kg	<10	10
Physical Testing	Moisture			%	19	0.3
Semivolatile Organics by GC-MS	Acenaphthene			mg/kg	<0.0050	0.005
Semivolatile Organics by GC-MS	Acenaphthylene			mg/kg	<0.0050	0.005
Semivolatile Organics by GC-MS	Anthracene			mg/kg	<0.0040	0.004
Semivolatile Organics by GC-MS	Benzo(a)anthracene			mg/kg	<0.010	0.01
Semivolatile Organics by GC-MS	Benzo(b&j)fluoranthene			mg/kg	0.018	0.01
Semivolatile Organics by GC-MS	Benzo(k)fluoranthene			mg/kg	<0.010	0.01
Semivolatile Organics by GC-MS	Benzo(g,h,i)perylene			mg/kg	<0.020	0.02
Semivolatile Organics by GC-MS	Benzo(a)pyrene			mg/kg	<0.010	0.01
Semivolatile Organics by GC-MS	Chrysene			mg/kg	<0.010	0.01
Semivolatile Organics by GC-MS	Dibenz(a,h)anthracene			mg/kg	<0.020	0.02
Semivolatile Organics by GC-MS	Fluoranthene			mg/kg	<0.010	0.01
Semivolatile Organics by GC-MS	Fluorene			mg/kg	<0.010	0.01
Semivolatile Organics by GC-MS	Indeno(1,2,3-cd)pyrene			mg/kg	<0.020	0.02
Semivolatile Organics by GC-MS	2-Methylnaphthalene			mg/kg	0.023	0.01
Semivolatile Organics by GC-MS	Naphthalene			mg/kg	<0.010	0.01
Semivolatile Organics by GC-MS	Phenanthrene			mg/kg	0.039	0.01
Semivolatile Organics by GC-MS	Pyrene			mg/kg	0.017	0.01
Semivolatile Organics by GC-MS	Low Molecular Weight PAH`s			mg/kg	0.062	0.05
Semivolatile Organics by GC-MS	High Molecular Weight PAH`s			mg/kg	0.035	0.02
Semivolatile Organics by GC-MS	Total PAH			mg/kg	0.097	0.05
Elements by Atomic Spectroscopy	Leachable Antimony (Sb)			mg/L	<1.0	1
Elements by Atomic Spectroscopy	Leachable Arsenic (As)			mg/L	<0.50	0.5
Elements by Atomic Spectroscopy	Leachable Barium (Ba)			mg/L	2.6	1
Elements by Atomic Spectroscopy	Leachable Beryllium (Be)			mg/L	<0.50	0.5
Elements by Atomic Spectroscopy	Leachable Boron (B)			mg/L	<1.0	1
Elements by Atomic Spectroscopy	Leachable Cadmium (Cd)			mg/L	<0.10	0.1
Elements by Atomic Spectroscopy	Leachable Chromium (Cr)			mg/L	<0.50	0.5
Elements by Atomic Spectroscopy	Leachable Cobalt (Co)			mg/L	<1.0	1
Elements by Atomic Spectroscopy	Leachable Copper (Cu)			mg/L	<1.0	1
Elements by Atomic Spectroscopy	Leachable Iron (Fe)			mg/L	<1.0	1
Elements by Atomic Spectroscopy	Leachable Lead (Pb)			mg/L	<0.50	0.5
Elements by Atomic Spectroscopy	Leachable Mercury (Hg)			mg/L	<0.020	0.02
Elements by Atomic Spectroscopy	Leachable Nickel (Ni)			mg/L	<0.50	0.5
Elements by Atomic Spectroscopy	Leachable Selenium (Se)			mg/L	<0.10	0.1
Elements by Atomic Spectroscopy	Leachable Silver (Ag)			mg/L	<0.50	0.5
Elements by Atomic Spectroscopy	Leachable Thallium (Tl)			mg/L	<0.50	0.5
Elements by Atomic Spectroscopy	Leachable Uranium (U)			mg/L	<0.20	0.2
Elements by Atomic Spectroscopy	Leachable Vanadium (V)			mg/L	<1.0	1
Elements by Atomic Spectroscopy	Leachable Zinc (Zn)			mg/L	<1.0	1
Elements by Atomic Spectroscopy	Leachable Zirconium (Zr)			mg/L	<1.0	1
Elements by Atomic Spectroscopy	Total Aluminum (Al)			mg/kg	12900	100
Elements by Atomic Spectroscopy	Total Antimony (Sb)			mg/kg	1.22	0.1
Elements by Atomic Spectroscopy	Total Arsenic (As)			mg/kg	10.1	0.2
Elements by Atomic Spectroscopy	Total Barium (Ba)			mg/kg	354	0.1
Elements by Atomic Spectroscopy	Total Beryllium (Be)			mg/kg	0.76	0.2
Elements by Atomic Spectroscopy	Total Bismuth (Bi)			mg/kg	0.2	0.1
Elements by Atomic Spectroscopy	Total Boron (B)			mg/kg	6.2	1
Elements by Atomic Spectroscopy	Total Cadmium (Cd)			mg/kg	0.807	0.05
Elements by Atomic Spectroscopy	Total Calcium (Ca)			mg/kg	33800	100
Elements by Atomic Spectroscopy	Total Chromium (Cr)			mg/kg	29.5	0.5
Elements by Atomic Spectroscopy	Total Cobalt (Co)			mg/kg	11.9	0.1
Elements by Atomic Spectroscopy	Total Copper (Cu)			mg/kg	31.3	0.5
Elements by Atomic Spectroscopy	Total Iron (Fe)			mg/kg	28100	100
Elements by Atomic Spectroscopy	Total Lead (Pb)			mg/kg	13.6	0.1
Elements by Atomic Spectroscopy	Total Lithium (Li)			mg/kg	19	0.5
Elements by Atomic Spectroscopy	Total Magnesium (Mg)			mg/kg	8690	100
Elements by Atomic Spectroscopy	Total Manganese (Mn)			mg/kg	411	0.2
Elements by Atomic Spectroscopy	Total Mercury (Hg)			mg/kg	0.053	0.05
Elements by Atomic Spectroscopy	Total Molybdenum (Mo)			mg/kg	2.69	0.1
Elements by Atomic Spectroscopy	Total Nickel (Ni)			mg/kg	40.2	0.5
Elements by Atomic Spectroscopy	Total Phosphorus (P)			mg/kg	856	10
Elements by Atomic Spectroscopy	Total Potassium (K)			mg/kg	1890	100
Elements by Atomic Spectroscopy	Total Selenium (Se)			mg/kg	0.66	0.5
Elements by Atomic Spectroscopy	Total Silver (Ag)			mg/kg	0.214	0.05
Elements by Atomic Spectroscopy	Total Sodium (Na)			mg/kg	121	100
Elements by Atomic Spectroscopy	Total Strontium (Sr)			mg/kg	95.4	0.1
Elements by Atomic Spectroscopy	Total Thallium (Tl)			mg/kg	0.244	0.05
Elements by Atomic Spectroscopy	Total Tin (Sn)			mg/kg	0.53	0.1
Elements by Atomic Spectroscopy	Total Titanium (Ti)			mg/kg	80.9	1
Elements by Atomic Spectroscopy	Total Tungsten (W)			mg/kg	<0.50	0.5
Elements by Atomic Spectroscopy	Total Uranium (U)			mg/kg	0.959	0.05
Elements by Atomic Spectroscopy	Total Vanadium (V)			mg/kg	53.7	1
Elements by Atomic Spectroscopy	Total Zinc (Zn)			mg/kg	109	1
Elements by Atomic Spectroscopy	Total Zirconium (Zr)			mg/kg	4.32	0.5
Total Petroleum Hydrocarbons	EPH (C10-C19)			mg/kg	<100	100
Total Petroleum Hydrocarbons	EPH (C19-C32)			mg/kg	<100	100
Total Petroleum Hydrocarbons	LEPH (C10-C19 less PAH)			mg/kg	<100	100
Total Petroleum Hydrocarbons	HEPH (C19-C32 less PAH)			mg/kg	<100	100
Miscellaneous	Total Carbon			%	2.1	0.05
Miscellaneous	Total Sulphur (S)			%	0.07	0.06
	Total Oil and grease			ug/g	110	100
BTEX by GC-MS	Xylenes (Total)			mg/kg	<0.057	0.057
BTEX by GC-MS	VH C6-C10			mg/kg	<8.6	8.6
BTEX by GC-MS	VPH (VH6 to 10 - BTEX)			mg/kg	<8.6	8.6
BTEX by GC-MS	Methyl-tert-butylether (MTBE)			mg/kg	<0.040	0.04
BTEX by GC-MS	Benzene			mg/kg	<0.0050	0.005
BTEX by GC-MS	Toluene			mg/kg	<0.050	0.05
BTEX by GC-MS	Ethylbenzene			mg/kg	<0.010	0.01
BTEX by GC-MS	m & p-Xylene			mg/kg	<0.040	0.04
BTEX by GC-MS	o-Xylene			mg/kg	<0.040	0.04
BTEX by GC-MS	Styrene			mg/kg	<0.030	0.03

LEGEND	
"TBA"	To Be Announced
"N/A"	Not Applicable
Bold & Red	Exceedance
Red with White Text	Exceeds Both Criteria
Highlighted	DL > Criteria

Disclaimer: This is not an official certficate of analysis. For QC data and comments, please refer to the original reports issued by Bureau Veritas.

ROWNUM	SITE	LOCATOR	LOGINNUM	RECEIVEDDATE	CLIENTID	SAMPLENUM	MAXXAMCODE	JOBNAME
2			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPH-BCLHEPH-S-ED-EPH (C10-C19)-1	BC LEPH/HEPH Petroleum Hydrocarbons
3			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPH-BCLHEPH-S-ED-EPH (C19-C32)-1	BC LEPH/HEPH Petroleum Hydrocarbons
4			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPH-BCLHEPH-S-ED-HEPH (C19-C32 less PAH)-1	BC LEPH/HEPH Petroleum Hydrocarbons
5			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPH-BCLHEPH-S-ED-LEPH (C10-C19 less PAH)-1	BC LEPH/HEPH Petroleum Hydrocarbons
6			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	GLY-EXTW-ED-Ethylene Glycol-1	
7			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	GLY-EXTW-ED-Propylene Glycol-1	
8			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	GLY-EXTW-ED-Diethylene Glycol-1	
9			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	GLY-EXTW-ED-Triethylene Glycol-1	
10			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Aluminum (Al)-1	CSR/CCME Metals in Soil with Hg
11			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Chromium (Cr)-1	CSR/CCME Metals in Soil with Hg
12			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Cobalt (Co)-1	CSR/CCME Metals in Soil with Hg
13			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Copper (Cu)-1	CSR/CCME Metals in Soil with Hg
14			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Mercury (Hg)-1	CSR/CCME Metals in Soil with Hg
15			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Iron (Fe)-1	CSR/CCME Metals in Soil with Hg
16			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Lead (Pb)-1	CSR/CCME Metals in Soil with Hg
17			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Lithium (Li)-1	CSR/CCME Metals in Soil with Hg
18			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Magnesium (Mg)-1	CSR/CCME Metals in Soil with Hg
19			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Manganese (Mn)-1	CSR/CCME Metals in Soil with Hg
20			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Antimony (Sb)-1	CSR/CCME Metals in Soil with Hg
21			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Molybdenum (Mo)-1	CSR/CCME Metals in Soil with Hg
22			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Nickel (Ni)-1	CSR/CCME Metals in Soil with Hg
23			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Potassium (K)-1	CSR/CCME Metals in Soil with Hg
24			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Selenium (Se)-1	CSR/CCME Metals in Soil with Hg
25			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Silver (Ag)-1	CSR/CCME Metals in Soil with Hg
26			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Sodium (Na)-1	CSR/CCME Metals in Soil with Hg
27			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Strontium (Sr)-1	CSR/CCME Metals in Soil with Hg
28			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Arsenic (As)-1	CSR/CCME Metals in Soil with Hg
29			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Thallium (Tl)-1	CSR/CCME Metals in Soil with Hg
30			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Tin (Sn)-1	CSR/CCME Metals in Soil with Hg
31			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Titanium (Ti)-1	CSR/CCME Metals in Soil with Hg
32			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Tungsten (W)-1	CSR/CCME Metals in Soil with Hg
33			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Uranium (U)-1	CSR/CCME Metals in Soil with Hg
34			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Vanadium (V)-1	CSR/CCME Metals in Soil with Hg
35			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Zinc (Zn)-1	CSR/CCME Metals in Soil with Hg
36			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Phosphorus (P)-1	CSR/CCME Metals in Soil with Hg
37			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Barium (Ba)-1	CSR/CCME Metals in Soil with Hg
38			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Zirconium (Zr)-1	CSR/CCME Metals in Soil with Hg
39			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Beryllium (Be)-1	CSR/CCME Metals in Soil with Hg
40			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Bismuth (Bi)-1	CSR/CCME Metals in Soil with Hg
41			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Boron (B)-1	CSR/CCME Metals in Soil with Hg
42			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Cadmium (Cd)-1	CSR/CCME Metals in Soil with Hg
43			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	METTMS-VMETCSR1_S-TOT-ED-Calcium (Ca)-1	CSR/CCME Metals in Soil with Hg
44			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Chromium (Cr)-1	TCLP Metals
45			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Cobalt (Co)-1	TCLP Metals
46			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Copper (Cu)-1	TCLP Metals
47			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Mercury (Hg)-1	TCLP Metals
48			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Iron (Fe)-1	TCLP Metals
49			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Lead (Pb)-1	TCLP Metals
50			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Antimony (Sb)-1	TCLP Metals
51			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Molybdenum (Mo)-1	TCLP Metals
52			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Nickel (Ni)-1	TCLP Metals
53			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Selenium (Se)-1	TCLP Metals
54			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Silver (Ag)-1	TCLP Metals
55			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Arsenic (As)-1	TCLP Metals
56			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Thallium (Tl)-1	TCLP Metals
57			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Uranium (U)-1	TCLP Metals
58			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Vanadium (V)-1	TCLP Metals
59			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Zinc (Zn)-1	TCLP Metals
60			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Barium (Ba)-1	TCLP Metals
61			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Zirconium (Zr)-1	TCLP Metals
62			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Beryllium (Be)-1	TCLP Metals
63			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Boron (B)-1	TCLP Metals
64			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-VMETTCLP1-TCLP-ED-Cadmium (Cd)-1	TCLP Metals
65			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	SPP-ED-Moisture-1	
66			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Naphthalene-1	BC LEPH/HEPH Petroleum Hydrocarbons
67			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Chrysene-1	BC LEPH/HEPH Petroleum Hydrocarbons
68			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Benzo(k)fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
69			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Benzo(a)pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
70			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Acenaphthylene-1	BC LEPH/HEPH Petroleum Hydrocarbons
71			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Indeno(1,2,3-cd)pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
72			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Dibenz(a,h)anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
73			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-2-Methylnaphthalene-1	BC LEPH/HEPH Petroleum Hydrocarbons
74			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Acenaphthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
75			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Fluorene-1	BC LEPH/HEPH Petroleum Hydrocarbons
76			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Benzo(a)anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
77			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Phenanthrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
78			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
79			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
80			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Benzo(g,h,i)perylene-1	BC LEPH/HEPH Petroleum Hydrocarbons
81			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Benzo(b&j)fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
82			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
83			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Total PAH-1	BC LEPH/HEPH Petroleum Hydrocarbons
84			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-High Molecular Weight PAH`s-1	BC LEPH/HEPH Petroleum Hydrocarbons
85			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PAH-BCLHEPH-S-ED-Low Molecular Weight PAH`s-1	BC LEPH/HEPH Petroleum Hydrocarbons
86			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	PHYS-VMETCSR1_S-SOL2-ED-pH-1	CSR/CCME Metals in Soil with Hg
87			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-ED-Final pH of Leachate-1	
88			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-ED-pH of Leaching Fluid-1	
89			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-ED-pH after HCl-1	
90			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	EPTCLP-ED-Initial pH of Sample-1	
91			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	INORG-TOT-ED-Carbon-1	
92			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	INORG-TOT-ED-Sulphur (S)-1	
93			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	OG-TOT-ED-Oil and grease-1	
94			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-BCVPH-V-ED-VH C6-C10-1	BC BTEX/VPH in Soil
95			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-BCVPH-V-ED-Xylenes (Total)-1	BC BTEX/VPH in Soil
96			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-BCVPH-V-ED-VPH (VH6 to 10 - BTEX)-1	BC BTEX/VPH in Soil
97			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-F-BCVPH-V-ED-Benzene-1	BC BTEX/VPH in Soil
98			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-F-BCVPH-V-ED-m & p-Xylene-1	BC BTEX/VPH in Soil
99			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-F-BCVPH-V-ED-Toluene-1	BC BTEX/VPH in Soil
100			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-F-BCVPH-V-ED-Ethylbenzene-1	BC BTEX/VPH in Soil
101			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-F-BCVPH-V-ED-o-Xylene-1	BC BTEX/VPH in Soil
102			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-F-BCVPH-V-ED-Styrene-1	BC BTEX/VPH in Soil
103			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	VOL-F-BCVPH-V-ED-Methyl-tert-butylether (MTBE)-1	BC BTEX/VPH in Soil
104			C463339	08-15-2024	Area 25-SP Dredgeate	CTM622	SUBI-ED-Nitrogen (N)-1	

PCODE	SUBMTRX	ANALYTE	RESULT	UNITS	DL	BATCH	ANALDATE	ANALYST	CATEGORY	SMPDATE	SMPTIME	METHOD
Ext. Pet. Hydrocarbon		EPH (C10-C19)	ND	mg/kg	100	B484169	08-20-2024	CHA	Soil	08-15-2024	9:00	BCMOE EPH S 12/16
Ext. Pet. Hydrocarbon		EPH (C19-C32)	160	mg/kg	100	B484169	08-20-2024	CHA	Soil	08-15-2024	9:00	BCMOE EPH S 12/16
Ext. Pet. Hydrocarbon		HEPH (C19-C32 less PAH)	160	mg/kg	100	B480588	08-21-2024	RAE	Soil	08-15-2024	9:00	Auto Calc
Ext. Pet. Hydrocarbon		LEPH (C10-C19 less PAH)	ND	mg/kg	100	B480588	08-21-2024	RAE	Soil	08-15-2024	9:00	Auto Calc
Glycols	Extractable (Water)	Ethylene Glycol	ND	mg/kg	10	B485885	08-21-2024	AAX	Soil	08-15-2024	9:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Propylene Glycol	ND	mg/kg	10	B485885	08-21-2024	AAX	Soil	08-15-2024	9:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Diethylene Glycol	ND	mg/kg	9.0	B485885	08-21-2024	AAX	Soil	08-15-2024	9:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Triethylene Glycol	ND	mg/kg	10	B485885	08-21-2024	AAX	Soil	08-15-2024	9:00	BCMOE Glycols 09/17
Total Metals by ICPMS	Total	Aluminum (Al)	11400	mg/kg	100	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Chromium (Cr)	39.9	mg/kg	0.50	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Cobalt (Co)	13.6	mg/kg	0.10	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Copper (Cu)	36.4	mg/kg	0.50	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Mercury (Hg)	0.076	mg/kg	0.050	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Iron (Fe)	34400	mg/kg	100	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Lead (Pb)	16.4	mg/kg	0.10	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Lithium (Li)	20.2	mg/kg	0.50	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Magnesium (Mg)	6590	mg/kg	100	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Manganese (Mn)	467	mg/kg	0.20	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Antimony (Sb)	1.43	mg/kg	0.10	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Molybdenum (Mo)	3.30	mg/kg	0.10	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Nickel (Ni)	49.1	mg/kg	0.50	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Potassium (K)	1930	mg/kg	100	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Selenium (Se)	0.86	mg/kg	0.50	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Silver (Ag)	0.260	mg/kg	0.050	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Sodium (Na)	148	mg/kg	100	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Strontium (Sr)	131	mg/kg	0.25	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Arsenic (As)	13.7	mg/kg	0.20	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Thallium (Tl)	0.256	mg/kg	0.050	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Tin (Sn)	0.70	mg/kg	0.10	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Titanium (Ti)	50.7	mg/kg	1.0	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Tungsten (W)	ND	mg/kg	0.50	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Uranium (U)	1.12	mg/kg	0.050	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Vanadium (V)	50.4	mg/kg	1.0	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Zinc (Zn)	140	mg/kg	1.0	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Phosphorus (P)	911	mg/kg	10	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Barium (Ba)	442	mg/kg	0.10	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Zirconium (Zr)	3.36	mg/kg	0.50	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Beryllium (Be)	0.61	mg/kg	0.20	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Bismuth (Bi)	0.24	mg/kg	0.10	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Boron (B)	6.1	mg/kg	1.0	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Cadmium (Cd)	0.885	mg/kg	0.050	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Calcium (Ca)	29200	mg/kg	100	B490761	08-26-2024	JAB	Soil	08-15-2024	9:00	EPA 6020 m
TCLP Extraction Procedure	Leachate	Chromium (Cr)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Cobalt (Co)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Copper (Cu)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Mercury (Hg)	ND	mg/L	0.0020	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Iron (Fe)	ND	mg/L	0.50	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Lead (Pb)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Antimony (Sb)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Molybdenum (Mo)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Nickel (Ni)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Selenium (Se)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Silver (Ag)	ND	mg/L	0.010	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Arsenic (As)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Thallium (Tl)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Uranium (U)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Vanadium (V)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Zinc (Zn)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Barium (Ba)	2.09	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Zirconium (Zr)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Beryllium (Be)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Boron (B)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
TCLP Extraction Procedure	Leachate	Cadmium (Cd)	ND	mg/L	0.10	B501084	09-03-2024	SE5	Soil	08-15-2024	9:00	EPA 1311, 6020bR2 m
Physical Properties		Moisture	37	%	0.30	B484221	08-20-2024	A1H	Soil	08-15-2024	9:00	CCME PHC-CWS m
Polycyclic Aromatics		Naphthalene	ND	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Chrysene	ND	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(k)fluoranthene	ND	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(a)pyrene	ND	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Acenaphthylene	ND	mg/kg	0.0050	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.020	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Dibenz(a,h)anthracene	ND	mg/kg	0.020	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		2-Methylnaphthalene	0.022	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Acenaphthene	ND	mg/kg	0.0050	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Fluorene	ND	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(a)anthracene	ND	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Phenanthrene	0.032	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Anthracene	ND	mg/kg	0.0040	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Fluoranthene	ND	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(g,h,i)perylene	ND	mg/kg	0.020	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(b&j)fluoranthene	0.024	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Pyrene	0.021	mg/kg	0.010	B484170	08-20-2024	NK3	Soil	08-15-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Total PAH	0.099	mg/kg	0.050	B480595	08-21-2024	RAE	Soil	08-15-2024	9:00	Auto Calc
Polycyclic Aromatics		High Molecular Weight PAH`s	0.045	mg/kg	0.020	B480595	08-21-2024	RAE	Soil	08-15-2024	9:00	Auto Calc
Polycyclic Aromatics		Low Molecular Weight PAH`s	0.054	mg/kg	0.050	B480595	08-21-2024	RAE	Soil	08-15-2024	9:00	Auto Calc
Physical Properties	Soluble (2:1)	pH	7.88	pH	N/A	B489839	08-23-2024	JAY	Soil	08-15-2024	9:00	SM 24 4500 H+B m
TCLP Extraction Procedure		Final pH of Leachate	6.48	pH	N/A	B498470	09-03-2024	S2L	Soil	08-15-2024	9:00	EPA 1311
TCLP Extraction Procedure		pH of Leaching Fluid	4.93	pH	N/A	B498470	09-03-2024	S2L	Soil	08-15-2024	9:00	EPA 1311
TCLP Extraction Procedure		pH after HCl	2.25	pH	N/A	B498470	09-03-2024	S2L	Soil	08-15-2024	9:00	EPA 1311
TCLP Extraction Procedure		Initial pH of Sample	8.51	pH	N/A	B498470	09-03-2024	S2L	Soil	08-15-2024	9:00	EPA 1311
Misc. Inorganics	Total	Carbon	2.2	%	0.05	B492659	08-27-2024	PL	Soil	08-15-2024	9:00	LECO 203-821-498 m
Misc. Inorganics	Total	Sulphur (S)	0.08	%	0.06	B492659	08-27-2024	PL	Soil	08-15-2024	9:00	LECO 203-821-498 m
OIL & GREASE	Total	Oil and grease	250	ug/g	100	B493785	08-29-2024	MPE	Soil	08-15-2024	9:00	BCMOE BCLM Mar1997 m
Volatiles		VH C6-C10	ND	mg/kg	8.6	B481596	08-20-2024	RAE	Soil	08-15-2024	9:00	Auto Calc
Volatiles		Xylenes (Total)	ND	mg/kg	0.057	B481596	08-20-2024	RAE	Soil	08-15-2024	9:00	Auto Calc
Volatiles		VPH (VH6 to 10 - BTEX)	ND	mg/kg	8.6	B481596	08-20-2024	RAE	Soil	08-15-2024	9:00	Auto Calc
Field Preserved Volatiles		Benzene	ND	mg/kg	0.0050	B480506	08-20-2024	WPK	Soil	08-15-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		m & p-Xylene	ND	mg/kg	0.040	B480506	08-20-2024	WPK	Soil	08-15-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		Toluene	ND	mg/kg	0.050	B480506	08-20-2024	WPK	Soil	08-15-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		Ethylbenzene	ND	mg/kg	0.010	B480506	08-20-2024	WPK	Soil	08-15-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		o-Xylene	ND	mg/kg	0.040	B480506	08-20-2024	WPK	Soil	08-15-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		Styrene	ND	mg/kg	0.030	B480506	08-20-2024	WPK	Soil	08-15-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		Methyl-tert-butylether (MTBE)	ND	mg/kg	0.040	B480506	08-20-2024	WPK	Soil	08-15-2024	9:00	BC MELP VH 2014
Internal Sublet Analysis		Nitrogen (N)	0.18	%	0.010	B488694	08-22-2024	éQB	Soil	08-15-2024	9:00	E3529/EN 0000:2003

ROWNUM	SITE	LOCATOR	LOGINNUM	RECEIVEDDATE	CLIENTID	SAMPLENUM	MAXXAMCODE	JOBNAME
2			C473664	09-17-2024	Area 13 West Pond	CVS302	EPH-BCLHEPH-S-ED-EPH (C10-C19)-1	BC LEPH/HEPH Petroleum Hydrocarbons
3			C473664	09-17-2024	Area 13 West Pond	CVS302	EPH-BCLHEPH-S-ED-EPH (C19-C32)-1	BC LEPH/HEPH Petroleum Hydrocarbons
4			C473664	09-17-2024	Area 13 West Pond	CVS302	EPH-BCLHEPH-S-ED-HEPH (C19-C32 less PAH)-1	BC LEPH/HEPH Petroleum Hydrocarbons
5			C473664	09-17-2024	Area 13 West Pond	CVS302	EPH-BCLHEPH-S-ED-LEPH (C10-C19 less PAH)-1	BC LEPH/HEPH Petroleum Hydrocarbons
6			C473664	09-17-2024	Area 13 West Pond	CVS302	GLY-EXTW-ED-Ethylene Glycol-1	
7			C473664	09-17-2024	Area 13 West Pond	CVS302	GLY-EXTW-ED-Propylene Glycol-1	
8			C473664	09-17-2024	Area 13 West Pond	CVS302	GLY-EXTW-ED-Diethylene Glycol-1	
9			C473664	09-17-2024	Area 13 West Pond	CVS302	GLY-EXTW-ED-Triethylene Glycol-1	
10			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Aluminum (Al)-1	CSR/CCME Metals in Soil with Hg
11			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Chromium (Cr)-1	CSR/CCME Metals in Soil with Hg
12			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Cobalt (Co)-1	CSR/CCME Metals in Soil with Hg
13			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Copper (Cu)-1	CSR/CCME Metals in Soil with Hg
14			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Mercury (Hg)-1	CSR/CCME Metals in Soil with Hg
15			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Iron (Fe)-1	CSR/CCME Metals in Soil with Hg
16			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Lead (Pb)-1	CSR/CCME Metals in Soil with Hg
17			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Lithium (Li)-1	CSR/CCME Metals in Soil with Hg
18			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Magnesium (Mg)-1	CSR/CCME Metals in Soil with Hg
19			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Manganese (Mn)-1	CSR/CCME Metals in Soil with Hg
20			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Antimony (Sb)-1	CSR/CCME Metals in Soil with Hg
21			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Molybdenum (Mo)-1	CSR/CCME Metals in Soil with Hg
22			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Nickel (Ni)-1	CSR/CCME Metals in Soil with Hg
23			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Potassium (K)-1	CSR/CCME Metals in Soil with Hg
24			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Selenium (Se)-1	CSR/CCME Metals in Soil with Hg
25			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Silver (Ag)-1	CSR/CCME Metals in Soil with Hg
26			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Sodium (Na)-1	CSR/CCME Metals in Soil with Hg
27			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Strontium (Sr)-1	CSR/CCME Metals in Soil with Hg
28			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Arsenic (As)-1	CSR/CCME Metals in Soil with Hg
29			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Thallium (Tl)-1	CSR/CCME Metals in Soil with Hg
30			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Tin (Sn)-1	CSR/CCME Metals in Soil with Hg
31			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Titanium (Ti)-1	CSR/CCME Metals in Soil with Hg
32			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Tungsten (W)-1	CSR/CCME Metals in Soil with Hg
33			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Uranium (U)-1	CSR/CCME Metals in Soil with Hg
34			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Vanadium (V)-1	CSR/CCME Metals in Soil with Hg
35			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Zinc (Zn)-1	CSR/CCME Metals in Soil with Hg
36			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Phosphorus (P)-1	CSR/CCME Metals in Soil with Hg
37			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Barium (Ba)-1	CSR/CCME Metals in Soil with Hg
38			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Zirconium (Zr)-1	CSR/CCME Metals in Soil with Hg
39			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Beryllium (Be)-1	CSR/CCME Metals in Soil with Hg
40			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Bismuth (Bi)-1	CSR/CCME Metals in Soil with Hg
41			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Boron (B)-1	CSR/CCME Metals in Soil with Hg
42			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Cadmium (Cd)-1	CSR/CCME Metals in Soil with Hg
43			C473664	09-17-2024	Area 13 West Pond	CVS302	METTMS-VMETCSR1_S-TOT-ED-Calcium (Ca)-1	CSR/CCME Metals in Soil with Hg
44			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Chromium (Cr)-1	
45			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Cobalt (Co)-1	
46			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Copper (Cu)-1	
47			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Mercury (Hg)-1	
48			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Iron (Fe)-1	
49			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Lead (Pb)-1	
50			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Antimony (Sb)-1	
51			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Nickel (Ni)-1	
52			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Selenium (Se)-1	
53			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Silver (Ag)-1	
54			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Arsenic (As)-1	
55			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Thallium (Tl)-1	
56			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Uranium (U)-1	
57			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Vanadium (V)-1	
58			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Zinc (Zn)-1	
59			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Barium (Ba)-1	
60			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Zirconium (Zr)-1	
61			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Beryllium (Be)-1	
62			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Boron (B)-1	
63			C473664	09-17-2024	Area 13 West Pond	CVS302	ELE-LEAT-ED-Cadmium (Cd)-1	
64			C473664	09-17-2024	Area 13 West Pond	CVS302	SPP-ED-Moisture-1	
65			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Naphthalene-1	BC LEPH/HEPH Petroleum Hydrocarbons
66			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Chrysene-1	BC LEPH/HEPH Petroleum Hydrocarbons
67			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Benzo(k)fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
68			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Benzo(a)pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
69			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Acenaphthylene-1	BC LEPH/HEPH Petroleum Hydrocarbons
70			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Indeno(1,2,3-cd)pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
71			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Dibenz(a,h)anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
72			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-2-Methylnaphthalene-1	BC LEPH/HEPH Petroleum Hydrocarbons
73			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Acenaphthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
74			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Fluorene-1	BC LEPH/HEPH Petroleum Hydrocarbons
75			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Benzo(a)anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
76			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Phenanthrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
77			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
78			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
79			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Benzo(g,h,i)perylene-1	BC LEPH/HEPH Petroleum Hydrocarbons
80			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Benzo(b&j)fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
81			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
82			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Total PAH-1	BC LEPH/HEPH Petroleum Hydrocarbons
83			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-High Molecular Weight PAH`s-1	BC LEPH/HEPH Petroleum Hydrocarbons
84			C473664	09-17-2024	Area 13 West Pond	CVS302	PAH-BCLHEPH-S-ED-Low Molecular Weight PAH`s-1	BC LEPH/HEPH Petroleum Hydrocarbons
85			C473664	09-17-2024	Area 13 West Pond	CVS302	INORG-LEAT-ED-Final pH of Leachate-1	
86			C473664	09-17-2024	Area 13 West Pond	CVS302	INORG-LEAT-ED-pH after HCl-1	
87			C473664	09-17-2024	Area 13 West Pond	CVS302	INORG-LEAT-ED-Initial pH of Sample-1	
88			C473664	09-17-2024	Area 13 West Pond	CVS302	PHYS-VMETCSR1_S-SOL2-ED-pH-1	CSR/CCME Metals in Soil with Hg
89			C473664	09-17-2024	Area 13 West Pond	CVS302	INORG-TOT-ED-Carbon-1	
90			C473664	09-17-2024	Area 13 West Pond	CVS302	INORG-TOT-ED-Sulphur (S)-1	
91			C473664	09-17-2024	Area 13 West Pond	CVS302	OG-TOT-ED-Oil and grease-1	
92			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-BCVPH-V-ED-VH C6-C10-1	BC BTEX/VPH in Soil
93			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-BCVPH-V-ED-Xylenes (Total)-1	BC BTEX/VPH in Soil
94			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-BCVPH-V-ED-VPH (VH6 to 10 - BTEX)-1	BC BTEX/VPH in Soil
95			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-F-BCVPH-V-ED-Benzene-1	BC BTEX/VPH in Soil
96			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-F-BCVPH-V-ED-m & p-Xylene-1	BC BTEX/VPH in Soil
97			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-F-BCVPH-V-ED-Toluene-1	BC BTEX/VPH in Soil
98			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-F-BCVPH-V-ED-Ethylbenzene-1	BC BTEX/VPH in Soil
99			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-F-BCVPH-V-ED-o-Xylene-1	BC BTEX/VPH in Soil
100			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-F-BCVPH-V-ED-Styrene-1	BC BTEX/VPH in Soil
101			C473664	09-17-2024	Area 13 West Pond	CVS302	VOL-F-BCVPH-V-ED-Methyl-tert-butylether (MTBE)-1	BC BTEX/VPH in Soil
102			C473664	09-17-2024	Area 13 West Pond	CVS302	SUBI-ED-Nitrogen (N)-1	
103			C473664	09-17-2024	Area 13 East Pond	CVS303	EPH-BCLHEPH-S-ED-EPH (C10-C19)-1	BC LEPH/HEPH Petroleum Hydrocarbons
104			C473664	09-17-2024	Area 13 East Pond	CVS303	EPH-BCLHEPH-S-ED-EPH (C19-C32)-1	BC LEPH/HEPH Petroleum Hydrocarbons
105			C473664	09-17-2024	Area 13 East Pond	CVS303	EPH-BCLHEPH-S-ED-HEPH (C19-C32 less PAH)-1	BC LEPH/HEPH Petroleum Hydrocarbons
106			C473664	09-17-2024	Area 13 East Pond	CVS303	EPH-BCLHEPH-S-ED-LEPH (C10-C19 less PAH)-1	BC LEPH/HEPH Petroleum Hydrocarbons
107			C473664	09-17-2024	Area 13 East Pond	CVS303	GLY-EXTW-ED-Ethylene Glycol-1	
108			C473664	09-17-2024	Area 13 East Pond	CVS303	GLY-EXTW-ED-Propylene Glycol-1	
109			C473664	09-17-2024	Area 13 East Pond	CVS303	GLY-EXTW-ED-Diethylene Glycol-1	
110			C473664	09-17-2024	Area 13 East Pond	CVS303	GLY-EXTW-ED-Triethylene Glycol-1	

ROWNUM	SITE	LOCATOR	LOGINNUM	RECEIVEDDATE	CLIENTID	SAMPLENUM	MAXXAMCODE	JOBNAME
111			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Aluminum (Al)-1	CSR/CCME Metals in Soil with Hg
112			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Chromium (Cr)-1	CSR/CCME Metals in Soil with Hg
113			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Cobalt (Co)-1	CSR/CCME Metals in Soil with Hg
114			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Copper (Cu)-1	CSR/CCME Metals in Soil with Hg
115			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Mercury (Hg)-1	CSR/CCME Metals in Soil with Hg
116			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Iron (Fe)-1	CSR/CCME Metals in Soil with Hg
117			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Lead (Pb)-1	CSR/CCME Metals in Soil with Hg
118			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Lithium (Li)-1	CSR/CCME Metals in Soil with Hg
119			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Magnesium (Mg)-1	CSR/CCME Metals in Soil with Hg
120			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Manganese (Mn)-1	CSR/CCME Metals in Soil with Hg
121			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Antimony (Sb)-1	CSR/CCME Metals in Soil with Hg
122			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Molybdenum (Mo)-1	CSR/CCME Metals in Soil with Hg
123			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Nickel (Ni)-1	CSR/CCME Metals in Soil with Hg
124			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Potassium (K)-1	CSR/CCME Metals in Soil with Hg
125			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Selenium (Se)-1	CSR/CCME Metals in Soil with Hg
126			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Silver (Ag)-1	CSR/CCME Metals in Soil with Hg
127			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Sodium (Na)-1	CSR/CCME Metals in Soil with Hg
128			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Strontium (Sr)-1	CSR/CCME Metals in Soil with Hg
129			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Arsenic (As)-1	CSR/CCME Metals in Soil with Hg
130			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Thallium (Tl)-1	CSR/CCME Metals in Soil with Hg
131			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Tin (Sn)-1	CSR/CCME Metals in Soil with Hg
132			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Titanium (Ti)-1	CSR/CCME Metals in Soil with Hg
133			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Tungsten (W)-1	CSR/CCME Metals in Soil with Hg
134			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Uranium (U)-1	CSR/CCME Metals in Soil with Hg
135			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Vanadium (V)-1	CSR/CCME Metals in Soil with Hg
136			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Zinc (Zn)-1	CSR/CCME Metals in Soil with Hg
137			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Phosphorus (P)-1	CSR/CCME Metals in Soil with Hg
138			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Barium (Ba)-1	CSR/CCME Metals in Soil with Hg
139			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Zirconium (Zr)-1	CSR/CCME Metals in Soil with Hg
140			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Beryllium (Be)-1	CSR/CCME Metals in Soil with Hg
141			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Bismuth (Bi)-1	CSR/CCME Metals in Soil with Hg
142			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Boron (B)-1	CSR/CCME Metals in Soil with Hg
143			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Cadmium (Cd)-1	CSR/CCME Metals in Soil with Hg
144			C473664	09-17-2024	Area 13 East Pond	CVS303	METTMS-VMETCSR1_S-TOT-ED-Calcium (Ca)-1	CSR/CCME Metals in Soil with Hg
145			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Chromium (Cr)-1	
146			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Cobalt (Co)-1	
147			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Copper (Cu)-1	
148			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Mercury (Hg)-1	
149			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Iron (Fe)-1	
150			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Lead (Pb)-1	
151			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Antimony (Sb)-1	
152			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Nickel (Ni)-1	
153			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Selenium (Se)-1	
154			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Silver (Ag)-1	
155			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Arsenic (As)-1	
156			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Thallium (Tl)-1	
157			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Uranium (U)-1	
158			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Vanadium (V)-1	
159			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Zinc (Zn)-1	
160			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Barium (Ba)-1	
161			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Zirconium (Zr)-1	
162			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Beryllium (Be)-1	
163			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Boron (B)-1	
164			C473664	09-17-2024	Area 13 East Pond	CVS303	ELE-LEAT-ED-Cadmium (Cd)-1	
165			C473664	09-17-2024	Area 13 East Pond	CVS303	SPP-ED-Moisture-1	
166			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Naphthalene-1	BC LEPH/HEPH Petroleum Hydrocarbons
167			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Chrysene-1	BC LEPH/HEPH Petroleum Hydrocarbons
168			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Benzo(k)fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
169			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Benzo(a)pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
170			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Acenaphthylene-1	BC LEPH/HEPH Petroleum Hydrocarbons
171			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Indeno(1,2,3-cd)pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
172			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Dibenz(a,h)anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
173			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-2-Methylnaphthalene-1	BC LEPH/HEPH Petroleum Hydrocarbons
174			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Acenaphthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
175			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Fluorene-1	BC LEPH/HEPH Petroleum Hydrocarbons
176			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Benzo(a)anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
177			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Phenanthrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
178			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
179			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
180			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Benzo(g,h,i)perylene-1	BC LEPH/HEPH Petroleum Hydrocarbons
181			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Benzo(b&j)fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
182			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
183			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Total PAH-1	BC LEPH/HEPH Petroleum Hydrocarbons
184			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-High Molecular Weight PAH`s-1	BC LEPH/HEPH Petroleum Hydrocarbons
185			C473664	09-17-2024	Area 13 East Pond	CVS303	PAH-BCLHEPH-S-ED-Low Molecular Weight PAH`s-1	BC LEPH/HEPH Petroleum Hydrocarbons
186			C473664	09-17-2024	Area 13 East Pond	CVS303	INORG-LEAT-ED-Final pH of Leachate-1	
187			C473664	09-17-2024	Area 13 East Pond	CVS303	INORG-LEAT-ED-pH after HCl-1	
188			C473664	09-17-2024	Area 13 East Pond	CVS303	INORG-LEAT-ED-Initial pH of Sample-1	
189			C473664	09-17-2024	Area 13 East Pond	CVS303	PHYS-VMETCSR1_S-SOL2-ED-pH-1	CSR/CCME Metals in Soil with Hg
190			C473664	09-17-2024	Area 13 East Pond	CVS303	INORG-TOT-ED-Carbon-1	
191			C473664	09-17-2024	Area 13 East Pond	CVS303	INORG-TOT-ED-Sulphur (S)-1	
192			C473664	09-17-2024	Area 13 East Pond	CVS303	OG-TOT-ED-Oil and grease-1	
193			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-BCVPH-V-ED-VH C6-C10-1	BC BTEX/VPH in Soil
194			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-BCVPH-V-ED-Xylenes (Total)-1	BC BTEX/VPH in Soil
195			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-BCVPH-V-ED-VPH (VH6 to 10 - BTEX)-1	BC BTEX/VPH in Soil
196			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-F-BCVPH-V-ED-Benzene-1	BC BTEX/VPH in Soil
197			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-F-BCVPH-V-ED-m & p-Xylene-1	BC BTEX/VPH in Soil
198			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-F-BCVPH-V-ED-Toluene-1	BC BTEX/VPH in Soil
199			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-F-BCVPH-V-ED-Ethylbenzene-1	BC BTEX/VPH in Soil
200			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-F-BCVPH-V-ED-o-Xylene-1	BC BTEX/VPH in Soil
201			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-F-BCVPH-V-ED-Styrene-1	BC BTEX/VPH in Soil
202			C473664	09-17-2024	Area 13 East Pond	CVS303	VOL-F-BCVPH-V-ED-Methyl-tert-butylether (MTBE)-1	BC BTEX/VPH in Soil
203			C473664	09-17-2024	Area 13 East Pond	CVS303	SUBI-ED-Nitrogen (N)-1	

PCODE	SUBMTRX	ANALYTE	RESULT	UNITS	DL	BATCH	ANALDATE	ANALYST	CATEGORY	SMPDATE	SMPTIME	METHOD
Ext. Pet. Hydrocarbon		EPH (C10-C19)	ND	mg/kg	100	B550139	10-04-2024	CHA	Soil	09-17-2024	9:00	BCMOE EPH S 12/16
Ext. Pet. Hydrocarbon		EPH (C19-C32)	ND	mg/kg	100	B550139	10-04-2024	CHA	Soil	09-17-2024	9:00	BCMOE EPH S 12/16
Ext. Pet. Hydrocarbon		HEPH (C19-C32 less PAH)	ND	mg/kg	100	B527162	10-05-2024	RAE	Soil	09-17-2024	9:00	Auto Calc
Ext. Pet. Hydrocarbon		LEPH (C10-C19 less PAH)	ND	mg/kg	100	B527162	10-05-2024	RAE	Soil	09-17-2024	9:00	Auto Calc
Glycols	Extractable (Water)	Ethylene Glycol	ND	mg/kg	10	B550503	10-04-2024	AAX	Soil	09-17-2024	9:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Propylene Glycol	ND	mg/kg	10	B550503	10-04-2024	AAX	Soil	09-17-2024	9:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Diethylene Glycol	ND	mg/kg	9.0	B550503	10-04-2024	AAX	Soil	09-17-2024	9:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Triethylene Glycol	ND	mg/kg	10	B550503	10-04-2024	AAX	Soil	09-17-2024	9:00	BCMOE Glycols 09/17
Total Metals by ICPMS	Total	Aluminum (Al)	4300	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Chromium (Cr)	12.2	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Cobalt (Co)	5.10	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Copper (Cu)	13.0	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Mercury (Hg)	ND	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Iron (Fe)	20300	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Lead (Pb)	5.62	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Lithium (Li)	6.17	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Magnesium (Mg)	5240	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Manganese (Mn)	348	mg/kg	0.20	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Antimony (Sb)	0.57	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Molybdenum (Mo)	2.25	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Nickel (Ni)	16.9	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Potassium (K)	567	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Selenium (Se)	ND	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Silver (Ag)	0.082	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Sodium (Na)	ND	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Strontium (Sr)	64.0	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Arsenic (As)	6.01	mg/kg	0.20	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Thallium (Tl)	0.093	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Tin (Sn)	0.29	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Titanium (Ti)	110	mg/kg	1.0	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Tungsten (W)	ND	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Uranium (U)	0.616	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Vanadium (V)	24.4	mg/kg	1.0	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Zinc (Zn)	56.2	mg/kg	1.0	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Phosphorus (P)	651	mg/kg	10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Barium (Ba)	194	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Zirconium (Zr)	1.92	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Beryllium (Be)	0.27	mg/kg	0.20	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Bismuth (Bi)	ND	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Boron (B)	3.4	mg/kg	1.0	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Cadmium (Cd)	0.455	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Total Metals by ICPMS	Total	Calcium (Ca)	30600	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:00	EPA 6020 m
Elements	Leachable	Chromium (Cr)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Cobalt (Co)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Copper (Cu)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Mercury (Hg)	ND	mg/L	0.020	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Iron (Fe)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Lead (Pb)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Antimony (Sb)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Nickel (Ni)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Selenium (Se)	ND	mg/L	0.10	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Silver (Ag)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Arsenic (As)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Thallium (Tl)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Uranium (U)	ND	mg/L	0.20	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Vanadium (V)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Zinc (Zn)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Barium (Ba)	1.9	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Zirconium (Zr)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Beryllium (Be)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Boron (B)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Elements	Leachable	Cadmium (Cd)	ND	mg/L	0.10	B555616	10-08-2024	KKC	Soil	09-17-2024	9:00	EPA 6020b R2 m
Physical Properties		Moisture	9.2	%	0.30	B552010	10-05-2024	TBS	Soil	09-17-2024	9:00	CCME PHC-CWS m
Polycyclic Aromatics		Naphthalene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Chrysene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(k)fluoranthene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(a)pyrene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Acenaphthylene	ND	mg/kg	0.0050	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.020	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Dibenz(a,h)anthracene	ND	mg/kg	0.020	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		2-Methylnaphthalene	0.010	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Acenaphthene	ND	mg/kg	0.0050	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Fluorene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(a)anthracene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Phenanthrene	0.015	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Anthracene	ND	mg/kg	0.0040	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Fluoranthene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(g,h,i)perylene	ND	mg/kg	0.020	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(b&j)fluoranthene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Pyrene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:00	EPA 3540C/8270E m
Polycyclic Aromatics		Total PAH	ND	mg/kg	0.050	B527163	10-05-2024	RAE	Soil	09-17-2024	9:00	Auto Calc
Polycyclic Aromatics		High Molecular Weight PAH`s	ND	mg/kg	0.020	B527163	10-05-2024	RAE	Soil	09-17-2024	9:00	Auto Calc
Polycyclic Aromatics		Low Molecular Weight PAH`s	ND	mg/kg	0.050	B527163	10-05-2024	RAE	Soil	09-17-2024	9:00	Auto Calc
Misc. Inorganics	Leachable	Final pH of Leachate	6.18	pH	N/A	B554468	10-08-2024	KDC	Soil	09-17-2024	9:00	SM 24 4500 H+B m
Misc. Inorganics	Leachable	pH after HCl	2.02	pH	N/A	B554468	10-08-2024	KDC	Soil	09-17-2024	9:00	SM 24 4500 H+B m
Misc. Inorganics	Leachable	Initial pH of Sample	9.10	pH	N/A	B554468	10-08-2024	KDC	Soil	09-17-2024	9:00	SM 24 4500 H+B m
Physical Properties	Soluble (2:1)	pH	8.32	pH	N/A	B532588	09-23-2024	JAY	Soil	09-17-2024	9:00	SM 24 4500 H+B m
Misc. Inorganics	Total	Carbon	1.9	%	0.05	B532257	09-23-2024	PL	Soil	09-17-2024	9:00	LECO 203-821-498 m
Misc. Inorganics	Total	Sulphur (S)	0.06	%	0.06	B532257	09-23-2024	PL	Soil	09-17-2024	9:00	LECO 203-821-498 m
OIL & GREASE	Total	Oil and grease	190	ug/g	100	B535667	10-07-2024	MPE	Soil	09-17-2024	9:00	BCMOE BCLM Mar1997 m
Volatiles		VH C6-C10	ND	mg/kg	8.6	B527167	10-07-2024	RAE	Soil	09-17-2024	9:00	Auto Calc
Volatiles		Xylenes (Total)	ND	mg/kg	0.057	B527167	10-07-2024	RAE	Soil	09-17-2024	9:00	Auto Calc
Volatiles		VPH (VH6 to 10 - BTEX)	ND	mg/kg	8.6	B527167	10-07-2024	RAE	Soil	09-17-2024	9:00	Auto Calc
Field Preserved Volatiles		Benzene	ND	mg/kg	0.0050	B531439	09-23-2024	WPK	Soil	09-17-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		m & p-Xylene	ND	mg/kg	0.040	B531439	09-23-2024	WPK	Soil	09-17-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		Toluene	ND	mg/kg	0.050	B531439	09-23-2024	WPK	Soil	09-17-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		Ethylbenzene	ND	mg/kg	0.010	B531439	09-23-2024	WPK	Soil	09-17-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		o-Xylene	ND	mg/kg	0.040	B531439	09-23-2024	WPK	Soil	09-17-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		Styrene	ND	mg/kg	0.030	B531439	09-23-2024	WPK	Soil	09-17-2024	9:00	BC MELP VH 2014
Field Preserved Volatiles		Methyl-tert-butylether (MTBE)	ND	mg/kg	0.040	B531439	09-23-2024	WPK	Soil	09-17-2024	9:00	BC MELP VH 2014
Internal Sublet Analysis		Nitrogen (N)	0.035	%	0.010	B545199	09-27-2024	éQB	Soil	09-17-2024	9:00	E3529/EN 0000:2003
Ext. Pet. Hydrocarbon		EPH (C10-C19)	ND	mg/kg	100	B550139	10-04-2024	CHA	Soil	09-17-2024	9:05	BCMOE EPH S 12/16
Ext. Pet. Hydrocarbon		EPH (C19-C32)	170	mg/kg	100	B550139	10-04-2024	CHA	Soil	09-17-2024	9:05	BCMOE EPH S 12/16
Ext. Pet. Hydrocarbon		HEPH (C19-C32 less PAH)	170	mg/kg	100	B527162	10-05-2024	RAE	Soil	09-17-2024	9:05	Auto Calc
Ext. Pet. Hydrocarbon		LEPH (C10-C19 less PAH)	ND	mg/kg	100	B527162	10-05-2024	RAE	Soil	09-17-2024	9:05	Auto Calc
Glycols	Extractable (Water)	Ethylene Glycol	ND	mg/kg	10	B550503	10-04-2024	AAX	Soil	09-17-2024	9:05	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Propylene Glycol	ND	mg/kg	10	B550503	10-04-2024	AAX	Soil	09-17-2024	9:05	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Diethylene Glycol	ND	mg/kg	9.0	B550503	10-04-2024	AAX	Soil	09-17-2024	9:05	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Triethylene Glycol	ND	mg/kg	10	B550503	10-04-2024	AAX	Soil	09-17-2024	9:05	BCMOE Glycols 09/17

PCODE	SUBMTRX	ANALYTE	RESULT	UNITS	DL	BATCH	ANALDATE	ANALYST	CATEGORY	SMPDATE	SMPTIME	METHOD
Total Metals by ICPMS	Total	Aluminum (Al)	5170	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Chromium (Cr)	12.5	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Cobalt (Co)	5.52	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Copper (Cu)	13.2	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Mercury (Hg)	ND	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Iron (Fe)	17500	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Lead (Pb)	5.92	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Lithium (Li)	7.14	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Magnesium (Mg)	6150	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Manganese (Mn)	290	mg/kg	0.20	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Antimony (Sb)	0.60	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Molybdenum (Mo)	2.59	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Nickel (Ni)	18.5	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Potassium (K)	549	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Selenium (Se)	ND	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Silver (Ag)	0.093	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Sodium (Na)	ND	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Strontium (Sr)	63.7	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Arsenic (As)	6.79	mg/kg	0.20	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Thallium (Tl)	0.095	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Tin (Sn)	0.24	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Titanium (Ti)	114	mg/kg	1.0	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Tungsten (W)	ND	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Uranium (U)	0.603	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Vanadium (V)	24.6	mg/kg	1.0	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Zinc (Zn)	57.4	mg/kg	1.0	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Phosphorus (P)	661	mg/kg	10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Barium (Ba)	146	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Zirconium (Zr)	1.42	mg/kg	0.50	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Beryllium (Be)	0.29	mg/kg	0.20	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Bismuth (Bi)	ND	mg/kg	0.10	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Boron (B)	3.5	mg/kg	1.0	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Cadmium (Cd)	0.410	mg/kg	0.050	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Total Metals by ICPMS	Total	Calcium (Ca)	27300	mg/kg	100	B532684	09-24-2024	KKC	Soil	09-17-2024	9:05	EPA 6020 m
Elements	Leachable	Chromium (Cr)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Cobalt (Co)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Copper (Cu)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Mercury (Hg)	ND	mg/L	0.020	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Iron (Fe)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Lead (Pb)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Antimony (Sb)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Nickel (Ni)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Selenium (Se)	ND	mg/L	0.10	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Silver (Ag)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Arsenic (As)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Thallium (Tl)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Uranium (U)	ND	mg/L	0.20	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Vanadium (V)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Zinc (Zn)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Barium (Ba)	1.9	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Zirconium (Zr)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Beryllium (Be)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Boron (B)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Elements	Leachable	Cadmium (Cd)	ND	mg/L	0.10	B555616	10-08-2024	KKC	Soil	09-17-2024	9:05	EPA 6020b R2 m
Physical Properties		Moisture	14	%	0.30	B552010	10-05-2024	TBS	Soil	09-17-2024	9:05	CCME PHC-CWS m
Polycyclic Aromatics		Naphthalene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Chrysene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(k)fluoranthene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(a)pyrene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Acenaphthylene	ND	mg/kg	0.0050	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.020	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Dibenz(a,h)anthracene	ND	mg/kg	0.020	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		2-Methylnaphthalene	0.012	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Acenaphthene	ND	mg/kg	0.0050	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Fluorene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(a)anthracene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Phenanthrene	0.019	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Anthracene	ND	mg/kg	0.0040	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Fluoranthene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(g,h,i)perylene	ND	mg/kg	0.020	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(b&j)fluoranthene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Pyrene	ND	mg/kg	0.010	B550141	10-05-2024	NK3	Soil	09-17-2024	9:05	EPA 3540C/8270E m
Polycyclic Aromatics		Total PAH	ND	mg/kg	0.050	B527163	10-05-2024	RAE	Soil	09-17-2024	9:05	Auto Calc
Polycyclic Aromatics		High Molecular Weight PAH`s	ND	mg/kg	0.020	B527163	10-05-2024	RAE	Soil	09-17-2024	9:05	Auto Calc
Polycyclic Aromatics		Low Molecular Weight PAH`s	ND	mg/kg	0.050	B527163	10-05-2024	RAE	Soil	09-17-2024	9:05	Auto Calc
Misc. Inorganics	Leachable	Final pH of Leachate	6.12	pH	N/A	B554468	10-08-2024	KDC	Soil	09-17-2024	9:05	SM 24 4500 H+B m
Misc. Inorganics	Leachable	pH after HCl	1.97	pH	N/A	B554468	10-08-2024	KDC	Soil	09-17-2024	9:05	SM 24 4500 H+B m
Misc. Inorganics	Leachable	Initial pH of Sample	8.93	pH	N/A	B554468	10-08-2024	KDC	Soil	09-17-2024	9:05	SM 24 4500 H+B m
Physical Properties	Soluble (2:1)	pH	8.44	pH	N/A	B532588	09-23-2024	JAY	Soil	09-17-2024	9:05	SM 24 4500 H+B m
Misc. Inorganics	Total	Carbon	1.4	%	0.05	B532257	09-23-2024	PL	Soil	09-17-2024	9:05	LECO 203-821-498 m
Misc. Inorganics	Total	Sulphur (S)	0.07	%	0.06	B532257	09-23-2024	PL	Soil	09-17-2024	9:05	LECO 203-821-498 m
OIL & GREASE	Total	Oil and grease	110	ug/g	100	B535667	10-07-2024	MPE	Soil	09-17-2024	9:05	BCMOE BCLM Mar1997 m
Volatiles		VH C6-C10	ND	mg/kg	8.6	B527167	10-07-2024	RAE	Soil	09-17-2024	9:05	Auto Calc
Volatiles		Xylenes (Total)	ND	mg/kg	0.057	B527167	10-07-2024	RAE	Soil	09-17-2024	9:05	Auto Calc
Volatiles		VPH (VH6 to 10 - BTEX)	ND	mg/kg	8.6	B527167	10-07-2024	RAE	Soil	09-17-2024	9:05	Auto Calc
Field Preserved Volatiles		Benzene	ND	mg/kg	0.0050	B531439	09-23-2024	WPK	Soil	09-17-2024	9:05	BC MELP VH 2014
Field Preserved Volatiles		m & p-Xylene	ND	mg/kg	0.040	B531439	09-23-2024	WPK	Soil	09-17-2024	9:05	BC MELP VH 2014
Field Preserved Volatiles		Toluene	ND	mg/kg	0.050	B531439	09-23-2024	WPK	Soil	09-17-2024	9:05	BC MELP VH 2014
Field Preserved Volatiles		Ethylbenzene	ND	mg/kg	0.010	B531439	09-23-2024	WPK	Soil	09-17-2024	9:05	BC MELP VH 2014
Field Preserved Volatiles		o-Xylene	ND	mg/kg	0.040	B531439	09-23-2024	WPK	Soil	09-17-2024	9:05	BC MELP VH 2014
Field Preserved Volatiles		Styrene	ND	mg/kg	0.030	B531439	09-23-2024	WPK	Soil	09-17-2024	9:05	BC MELP VH 2014
Field Preserved Volatiles		Methyl-tert-butylether (MTBE)	ND	mg/kg	0.040	B531439	09-23-2024	WPK	Soil	09-17-2024	9:05	BC MELP VH 2014
Internal Sublet Analysis		Nitrogen (N)	0.036	%	0.010	B545199	09-27-2024	éQB	Soil	09-17-2024	9:05	E3529/EN 0000:2003

ROWNUM	SITE	LOCATOR	LOGINNUM	RECEIVEDDATE	CLIENTID	SAMPLENUM	MAXXAMCODE	JOBNAME
2			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	EPH-BCLHEPH-S-ED-EPH (C10-C19)-1	BC LEPH/HEPH Petroleum Hydrocarbons
3			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	EPH-BCLHEPH-S-ED-EPH (C19-C32)-1	BC LEPH/HEPH Petroleum Hydrocarbons
4			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	EPH-BCLHEPH-S-ED-HEPH (C19-C32 less PAH)-1	BC LEPH/HEPH Petroleum Hydrocarbons
5			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	EPH-BCLHEPH-S-ED-LEPH (C10-C19 less PAH)-1	BC LEPH/HEPH Petroleum Hydrocarbons
6			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	GLY-EXTW-ED-Ethylene Glycol-1	
7			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	GLY-EXTW-ED-Propylene Glycol-1	
8			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	GLY-EXTW-ED-Diethylene Glycol-1	
9			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	GLY-EXTW-ED-Triethylene Glycol-1	
10			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Aluminum (Al)-1	CSR/CCME Metals in Soil with Hg
11			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Chromium (Cr)-1	CSR/CCME Metals in Soil with Hg
12			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Cobalt (Co)-1	CSR/CCME Metals in Soil with Hg
13			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Copper (Cu)-1	CSR/CCME Metals in Soil with Hg
14			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Mercury (Hg)-1	CSR/CCME Metals in Soil with Hg
15			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Iron (Fe)-1	CSR/CCME Metals in Soil with Hg
16			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Lead (Pb)-1	CSR/CCME Metals in Soil with Hg
17			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Lithium (Li)-1	CSR/CCME Metals in Soil with Hg
18			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Magnesium (Mg)-1	CSR/CCME Metals in Soil with Hg
19			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Manganese (Mn)-1	CSR/CCME Metals in Soil with Hg
20			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Antimony (Sb)-1	CSR/CCME Metals in Soil with Hg
21			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Molybdenum (Mo)-1	CSR/CCME Metals in Soil with Hg
22			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Nickel (Ni)-1	CSR/CCME Metals in Soil with Hg
23			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Potassium (K)-1	CSR/CCME Metals in Soil with Hg
24			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Selenium (Se)-1	CSR/CCME Metals in Soil with Hg
25			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Silver (Ag)-1	CSR/CCME Metals in Soil with Hg
26			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Sodium (Na)-1	CSR/CCME Metals in Soil with Hg
27			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Strontium (Sr)-1	CSR/CCME Metals in Soil with Hg
28			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Arsenic (As)-1	CSR/CCME Metals in Soil with Hg
29			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Thallium (Tl)-1	CSR/CCME Metals in Soil with Hg
30			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Tin (Sn)-1	CSR/CCME Metals in Soil with Hg
31			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Titanium (Ti)-1	CSR/CCME Metals in Soil with Hg
32			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Tungsten (W)-1	CSR/CCME Metals in Soil with Hg
33			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Uranium (U)-1	CSR/CCME Metals in Soil with Hg
34			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Vanadium (V)-1	CSR/CCME Metals in Soil with Hg
35			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Zinc (Zn)-1	CSR/CCME Metals in Soil with Hg
36			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Phosphorus (P)-1	CSR/CCME Metals in Soil with Hg
37			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Barium (Ba)-1	CSR/CCME Metals in Soil with Hg
38			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Zirconium (Zr)-1	CSR/CCME Metals in Soil with Hg
39			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Beryllium (Be)-1	CSR/CCME Metals in Soil with Hg
40			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Bismuth (Bi)-1	CSR/CCME Metals in Soil with Hg
41			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Boron (B)-1	CSR/CCME Metals in Soil with Hg
42			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Cadmium (Cd)-1	CSR/CCME Metals in Soil with Hg
43			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	METTMS-VMETCSR1_S-TOT-ED-Calcium (Ca)-1	CSR/CCME Metals in Soil with Hg
44			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Chromium (Cr)-1	
45			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Cobalt (Co)-1	
46			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Copper (Cu)-1	
47			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Mercury (Hg)-1	
48			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Iron (Fe)-1	
49			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Lead (Pb)-1	
50			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Antimony (Sb)-1	
51			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Nickel (Ni)-1	
52			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Selenium (Se)-1	
53			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Silver (Ag)-1	
54			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Arsenic (As)-1	
55			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Thallium (Tl)-1	
56			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Uranium (U)-1	
57			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Vanadium (V)-1	
58			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Zinc (Zn)-1	
59			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Barium (Ba)-1	
60			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Zirconium (Zr)-1	
61			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Beryllium (Be)-1	
62			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Boron (B)-1	
63			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	ELE-LEAT-ED-Cadmium (Cd)-1	
64			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	SPP-ED-Moisture-1	
65			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Naphthalene-1	BC LEPH/HEPH Petroleum Hydrocarbons
66			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Chrysene-1	BC LEPH/HEPH Petroleum Hydrocarbons
67			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Benzo(k)fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
68			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Benzo(a)pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
69			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Acenaphthylene-1	BC LEPH/HEPH Petroleum Hydrocarbons
70			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Indeno(1,2,3-cd)pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
71			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Dibenz(a,h)anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
72			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-2-Methylnaphthalene-1	BC LEPH/HEPH Petroleum Hydrocarbons
73			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Acenaphthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
74			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Fluorene-1	BC LEPH/HEPH Petroleum Hydrocarbons
75			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Benzo(a)anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
76			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Phenanthrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
77			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Anthracene-1	BC LEPH/HEPH Petroleum Hydrocarbons
78			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
79			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Benzo(g,h,i)perylene-1	BC LEPH/HEPH Petroleum Hydrocarbons
80			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Benzo(b&j)fluoranthene-1	BC LEPH/HEPH Petroleum Hydrocarbons
81			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Pyrene-1	BC LEPH/HEPH Petroleum Hydrocarbons
82			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Total PAH-1	BC LEPH/HEPH Petroleum Hydrocarbons
83			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-High Molecular Weight PAH`s-1	BC LEPH/HEPH Petroleum Hydrocarbons
84			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PAH-BCLHEPH-S-ED-Low Molecular Weight PAH`s-1	BC LEPH/HEPH Petroleum Hydrocarbons
85			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	INORG-LEAT-ED-Final pH of Leachate-1	
86			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	INORG-LEAT-ED-pH after HCl-1	
87			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	INORG-LEAT-ED-Initial pH of Sample-1	
88			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	PHYS-VMETCSR1_S-SOL2-ED-pH-1	CSR/CCME Metals in Soil with Hg
89			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	INORG-TOT-ED-Carbon-1	
90			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	INORG-TOT-ED-Sulphur (S)-1	
91			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	OG-TOT-ED-Oil and grease-1	
92			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-BCVPH-V-ED-VH C6-C10-1	BC BTEX/VPH in Soil
93			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-BCVPH-V-ED-Xylenes (Total)-1	BC BTEX/VPH in Soil
94			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-BCVPH-V-ED-VPH (VH6 to 10 - BTEX)-1	BC BTEX/VPH in Soil
95			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-F-BCVPH-V-ED-Benzene-1	BC BTEX/VPH in Soil
96			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-F-BCVPH-V-ED-m & p-Xylene-1	BC BTEX/VPH in Soil
97			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-F-BCVPH-V-ED-Toluene-1	BC BTEX/VPH in Soil
98			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-F-BCVPH-V-ED-Ethylbenzene-1	BC BTEX/VPH in Soil
99			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-F-BCVPH-V-ED-o-Xylene-1	BC BTEX/VPH in Soil
100			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-F-BCVPH-V-ED-Styrene-1	BC BTEX/VPH in Soil
101			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	VOL-F-BCVPH-V-ED-Methyl-tert-butylether (MTBE)-1	BC BTEX/VPH in Soil
102			C478384	10-01-2024	Phase 3 Crusher Pond Dredgeate	CWV981	SUBI-ED-Nitrogen (N)-1	

PCODE	SUBMTRX	ANALYTE	RESULT	UNITS	DL	BATCH	ANALDATE	ANALYST	CATEGORY	SMPDATE	SMPTIME	METHOD
Ext. Pet. Hydrocarbon		EPH (C10-C19)	ND	mg/kg	100	B545055	10-03-2024	CHA	Soil	09-28-2024	15:00	BCMOE EPH S 12/16
Ext. Pet. Hydrocarbon		EPH (C19-C32)	ND	mg/kg	100	B545055	10-03-2024	CHA	Soil	09-28-2024	15:00	BCMOE EPH S 12/16
Ext. Pet. Hydrocarbon		HEPH (C19-C32 less PAH)	ND	mg/kg	100	B546243	10-04-2024	RAE	Soil	09-28-2024	15:00	Auto Calc
Ext. Pet. Hydrocarbon		LEPH (C10-C19 less PAH)	ND	mg/kg	100	B546243	10-04-2024	RAE	Soil	09-28-2024	15:00	Auto Calc
Glycols	Extractable (Water)	Ethylene Glycol	ND	mg/kg	10	B548579	10-03-2024	AAX	Soil	09-28-2024	15:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Propylene Glycol	ND	mg/kg	10	B548579	10-03-2024	AAX	Soil	09-28-2024	15:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Diethylene Glycol	ND	mg/kg	9.0	B548579	10-03-2024	AAX	Soil	09-28-2024	15:00	BCMOE Glycols 09/17
Glycols	Extractable (Water)	Triethylene Glycol	ND	mg/kg	10	B548579	10-03-2024	AAX	Soil	09-28-2024	15:00	BCMOE Glycols 09/17
Total Metals by ICPMS	Total	Aluminum (Al)	5530	mg/kg	100	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Chromium (Cr)	16.0	mg/kg	0.50	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Cobalt (Co)	7.27	mg/kg	0.10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Copper (Cu)	13.5	mg/kg	0.50	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Mercury (Hg)	0.050	mg/kg	0.050	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Iron (Fe)	21500	mg/kg	100	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Lead (Pb)	7.64	mg/kg	0.10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Lithium (Li)	5.83	mg/kg	0.50	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Magnesium (Mg)	10000	mg/kg	100	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Manganese (Mn)	378	mg/kg	0.20	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Antimony (Sb)	1.22	mg/kg	0.10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Molybdenum (Mo)	2.20	mg/kg	0.10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Nickel (Ni)	22.2	mg/kg	0.50	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Potassium (K)	597	mg/kg	100	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Selenium (Se)	ND	mg/kg	0.50	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Silver (Ag)	0.110	mg/kg	0.050	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Sodium (Na)	ND	mg/kg	100	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Strontium (Sr)	65.8	mg/kg	0.10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Arsenic (As)	12.2	mg/kg	0.20	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Thallium (Tl)	0.181	mg/kg	0.050	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Tin (Sn)	0.25	mg/kg	0.10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Titanium (Ti)	218	mg/kg	1.0	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Tungsten (W)	ND	mg/kg	0.50	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Uranium (U)	0.818	mg/kg	0.050	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Vanadium (V)	30.7	mg/kg	1.0	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Zinc (Zn)	53.1	mg/kg	1.0	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Phosphorus (P)	817	mg/kg	10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Barium (Ba)	219	mg/kg	0.10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Zirconium (Zr)	3.02	mg/kg	0.50	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Beryllium (Be)	0.30	mg/kg	0.20	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Bismuth (Bi)	ND	mg/kg	0.10	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Boron (B)	3.9	mg/kg	1.0	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Cadmium (Cd)	0.430	mg/kg	0.050	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Total Metals by ICPMS	Total	Calcium (Ca)	35400	mg/kg	100	B554078	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020 m
Elements	Leachable	Chromium (Cr)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Cobalt (Co)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Copper (Cu)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Mercury (Hg)	ND	mg/L	0.020	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Iron (Fe)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Lead (Pb)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Antimony (Sb)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Nickel (Ni)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Selenium (Se)	ND	mg/L	0.10	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Silver (Ag)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Arsenic (As)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Thallium (Tl)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Uranium (U)	ND	mg/L	0.20	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Vanadium (V)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Zinc (Zn)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Barium (Ba)	2.0	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Zirconium (Zr)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Beryllium (Be)	ND	mg/L	0.50	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Boron (B)	ND	mg/L	1.0	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Elements	Leachable	Cadmium (Cd)	ND	mg/L	0.10	B555616	10-08-2024	KKC	Soil	09-28-2024	15:00	EPA 6020b R2 m
Physical Properties		Moisture	23	%	0.30	B547929	10-03-2024	HPG	Soil	09-28-2024	15:00	CCME PHC-CWS m
Polycyclic Aromatics		Naphthalene	ND	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Chrysene	ND	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(k)fluoranthene	ND	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(a)pyrene	ND	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Acenaphthylene	ND	mg/kg	0.0050	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.020	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Dibenz(a,h)anthracene	ND	mg/kg	0.020	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		2-Methylnaphthalene	0.022	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Acenaphthene	ND	mg/kg	0.0050	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Fluorene	ND	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(a)anthracene	ND	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Phenanthrene	0.045	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Anthracene	ND	mg/kg	0.0040	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Fluoranthene	ND	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(g,h,i)perylene	0.046	mg/kg	0.020	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Benzo(b&j)fluoranthene	0.028	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Pyrene	0.014	mg/kg	0.010	B545063	10-03-2024	NK3	Soil	09-28-2024	15:00	EPA 3540C/8270E m
Polycyclic Aromatics		Total PAH	0.15	mg/kg	0.050	B546244	10-03-2024	RAE	Soil	09-28-2024	15:00	Auto Calc
Polycyclic Aromatics		High Molecular Weight PAH`s	0.087	mg/kg	0.020	B546244	10-03-2024	RAE	Soil	09-28-2024	15:00	Auto Calc
Polycyclic Aromatics		Low Molecular Weight PAH`s	0.067	mg/kg	0.050	B546244	10-03-2024	RAE	Soil	09-28-2024	15:00	Auto Calc
Misc. Inorganics	Leachable	Final pH of Leachate	6.11	pH	N/A	B554468	10-08-2024	KDC	Soil	09-28-2024	15:00	SM 24 4500 H+B m
Misc. Inorganics	Leachable	pH after HCl	2.19	pH	N/A	B554468	10-08-2024	KDC	Soil	09-28-2024	15:00	SM 24 4500 H+B m
Misc. Inorganics	Leachable	Initial pH of Sample	9.30	pH	N/A	B554468	10-08-2024	KDC	Soil	09-28-2024	15:00	SM 24 4500 H+B m
Physical Properties	Soluble (2:1)	pH	8.23	pH	N/A	B553693	10-07-2024	JAY	Soil	09-28-2024	15:00	SM 24 4500 H+B m
Misc. Inorganics	Total	Carbon	0.86	%	0.05	B551297	10-07-2024	PL	Soil	09-28-2024	15:00	LECO 203-821-498 m
Misc. Inorganics	Total	Sulphur (S)	ND	%	0.06	B551297	10-07-2024	PL	Soil	09-28-2024	15:00	LECO 203-821-498 m
OIL & GREASE	Total	Oil and grease	ND	ug/g	100	B555183	10-08-2024	MPE	Soil	09-28-2024	15:00	BCMOE BCLM Mar1997 m
Volatiles		VH C6-C10	ND	mg/kg	8.6	B546781	10-07-2024	RAE	Soil	09-28-2024	15:00	Auto Calc
Volatiles		Xylenes (Total)	ND	mg/kg	0.057	B546781	10-07-2024	RAE	Soil	09-28-2024	15:00	Auto Calc
Volatiles		VPH (VH6 to 10 - BTEX)	ND	mg/kg	8.6	B546781	10-07-2024	RAE	Soil	09-28-2024	15:00	Auto Calc
Field Preserved Volatiles		Benzene	ND	mg/kg	0.0050	B551348	10-06-2024	WPK	Soil	09-28-2024	15:00	BC MELP VH 2014
Field Preserved Volatiles		m & p-Xylene	ND	mg/kg	0.040	B551348	10-06-2024	WPK	Soil	09-28-2024	15:00	BC MELP VH 2014
Field Preserved Volatiles		Toluene	ND	mg/kg	0.050	B551348	10-06-2024	WPK	Soil	09-28-2024	15:00	BC MELP VH 2014
Field Preserved Volatiles		Ethylbenzene	ND	mg/kg	0.010	B551348	10-06-2024	WPK	Soil	09-28-2024	15:00	BC MELP VH 2014
Field Preserved Volatiles		o-Xylene	ND	mg/kg	0.040	B551348	10-06-2024	WPK	Soil	09-28-2024	15:00	BC MELP VH 2014
Field Preserved Volatiles		Styrene	ND	mg/kg	0.030	B551348	10-06-2024	WPK	Soil	09-28-2024	15:00	BC MELP VH 2014
Field Preserved Volatiles		Methyl-tert-butylether (MTBE)	ND	mg/kg	0.040	B551348	10-06-2024	WPK	Soil	09-28-2024	15:00	BC MELP VH 2014
Internal Sublet Analysis		Nitrogen (N)	0.016	%	0.010	B558398	10-09-2024	éQB	Soil	09-28-2024	15:00	E3529/EN 0000:2003

Appendix 3-A: 2024 In Situ Continuous Sonde Measurement Water Quality Data

PEACE RIVER
HYDRO PARTNERS

RSEM-R6W													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
01-Jan	96	-0.11	-0.03	0.01	0.1	394.6	404.2	7.84	7.86	8.06	3.6	4.4	10.1
02-Jan	95	-0.04	-0.03	0.00	391.3	393.8	397.5	7.86	7.88	7.89	3.3	3.8	4.6
03-Jan	96	-0.05	-0.04	-0.03	396.9	399.2	401.4	7.86	7.87	7.88	3.0	3.5	4.4
04-Jan	96	-0.05	-0.03	-0.01	395.5	397.6	405.0	7.88	7.89	7.90	2.7	3.1	3.9
05-Jan	96	-0.06	-0.04	-0.02	384.9	398.4	401.3	7.87	7.88	7.89	2.6	3.5	25.4
06-Jan	96	-0.05	-0.05	-0.04	393.5	397.7	400.5	7.83	7.85	7.87	2.7	3.1	3.8
07-Jan	89	-0.06	-0.04	-0.02	50.1	386.5	395.0	7.82	7.84	7.93	2.9	3.8	28.8
08-Jan	96	-0.06	-0.04	-0.02	328.6	393.9	400.3	7.83	7.85	7.89	2.8	3.3	9.7
09-Jan	96	-0.05	-0.04	0.04	358.5	395.8	400.6	7.84	7.85	7.86	2.8	3.2	4.1
10-Jan	96	-0.05	-0.05	-0.04	392.2	394.1	398.7	7.83	7.85	7.85	3.0	3.4	4.5
11-Jan	96	-0.05	-0.05	-0.04	388.5	391.9	394.4	7.84	7.85	7.86	3.2	3.7	4.7
12-Jan	96	-0.05	-0.04	0.04	387.3	389.0	391.7	7.85	7.86	7.89	3.5	4.0	5.3
13-Jan	96	-0.05	-0.05	-0.01	387.2	389.3	392.9	7.86	7.88	7.91	3.5	5.1	84.5
14-Jan	96	-0.06	-0.05	-0.04	387.0	389.0	393.6	7.89	7.93	7.95	4.2	5.0	19.7
15-Jan	96	-0.08	-0.07	-0.05	363.4	387.5	394.3	7.94	7.96	7.97	4.9	5.9	8.3
16-Jan	96	-1.96	-0.08	-0.05	0.0	149.3	412.9	7.40	7.94	7.98	6.1	20.3	1022.7
17-Jan	96	-0.06	-0.06	-0.05	7.2	121.5	205.3	7.86	7.89	7.92	6.3	7.7	12.0
18-Jan	96	-0.06	-0.06	-0.05	206.8	257.4	319.9	7.76	7.84	8.28	6.6	8.5	35.1
19-Jan	96	-0.06	-0.05	-0.05	264.7	350.9	388.0	7.76	7.82	7.94	7.7	9.0	13.9
20-Jan	96	-0.06	-0.05	-0.04	129.5	355.2	382.3	7.61	7.75	7.91	7.8	12.1	92.2
21-Jan	96	-0.44	-0.05	-0.04	0.0	303.2	361.2	6.90	7.64	7.95	1.0	16.1	35.9
22-Jan	96	-0.06	-0.05	-0.03	273.6	321.6	336.2	7.66	7.73	7.93	9.9	12.7	16.9
23-Jan	96	-0.06	-0.04	-0.03	262.7	312.9	335.8	7.77	7.82	7.88	11.6	13.2	34.7
24-Jan	96	-0.05	-0.04	-0.03	292.8	307.4	312.7	7.84	7.97	8.11	10.2	13.2	45.3
25-Jan	91	-0.05	-0.05	-0.04	274.9	301.1	306.4	8.06	8.13	8.21	9.7	12.2	22.4
26-Jan	79	-0.05	-0.05	-0.04	284.2	295.4	297.2	8.08	8.13	8.18	8.7	10.8	35.8
27-Jan	96	-0.05	-0.04	0.02	289.6	292.8	295.8	8.02	8.09	8.17	7.5	9.2	12.3
28-Jan	96	-0.05	-0.04	0.08	283.9	287.4	290.6	8.00	8.05	8.10	6.0	7.7	10.3
29-Jan	96	-0.05	-0.04	-0.02	276.3	279.9	284.9	7.96	8.03	8.09	4.2	5.7	8.0
30-Jan	96	-0.05	0.00	0.25	101.1	240.2	276.4	7.91	8.02	8.27	2.4	7.0	18.9
31-Jan	96	-0.04	-0.02	0.01	73.1	77.9	98.6	8.23	8.76	9.37	11.5	14.6	19.5
01-Feb	96	-0.04	-0.03	0.00	75.0	76.8	78.0	8.61	8.97	9.37	7.3	12.1	16.0
02-Feb	96	-0.04	-0.01	0.08	72.6	77.0	78.6	8.36	8.64	8.93	6.9	10.4	13.8
03-Feb	96	-0.04	-0.02	0.06	78.3	82.0	87.0	8.35	8.57	8.80	9.0	10.3	12.1
04-Feb	96	-0.05	-0.02	0.04	86.7	95.6	108.4	8.16	8.35	8.55	9.3	9.8	12.3
05-Feb	45	-0.05	-0.05	-0.03	108.3	109.9	111.8	8.13	8.16	8.19	8.4	9.5	11.1
06-Feb	37	-0.05	-0.04	-0.03	131.5	135.6	137.0	8.10	8.13	8.14	9.3	11.3	18.2
07-Feb	96	-0.05	-0.04	-0.01	136.9	141.2	150.7	8.09	8.12	8.14	8.9	10.0	12.7
08-Feb	96	-0.05	-0.05	-0.02	144.8	151.9	160.3	8.08	8.11	8.13	8.7	10.1	17.3
09-Feb	96	-0.05	-0.04	-0.02	160.0	172.9	185.7	8.09	8.12	8.14	8.5	11.6	148.2
10-Feb	95	-0.06	-0.04	-0.02	186.3	193.4	199.9	8.07	8.11	8.12	7.7	9.6	15.9
11-Feb	96	-0.05	-0.04	0.00	198.1	207.2	221.3	8.06	8.09	8.11	7.9	9.5	15.0
12-Feb	96	-0.05	-0.04	0.00	218.5	224.8	228.9	8.07	8.11	8.24	7.0	8.5	12.1
13-Feb	96	-0.06	-0.05	0.00	228.3	237.9	250.6	8.05	8.09	8.16	6.5	7.8	12.4
14-Feb	96	-0.06	-0.05	-0.03	237.7	254.7	264.0	8.02	8.04	8.07	5.0	7.0	9.4
15-Feb	96	-0.06	-0.06	-0.05	203.9	231.5	368.8	7.98	8.00	8.19	5.5	20.7	140.4
16-Feb	88	-0.06	-0.05	-0.05	145.2	203.7	243.3	7.99	8.00	8.03	4.0	6.6	9.0
17-Feb	58	-0.07	-0.06	-0.06	25.2	84.8	157.5	8.01	8.02	8.04	5.6	10.0	99.4
18-Feb	38	-0.06	-0.05	-0.05	5.6	10.3	13.4	8.01	8.03	8.07	7.4	9.9	12.0
19-Feb	76	-0.06	-0.05	-0.05	5.2	8.7	14.1	7.98	8.08	10.66	5.4	13.9	255.6
20-Feb	74	-0.06	-0.02	2.51	3.9	6.1	7.9	7.94	7.98	8.82	5.4	8.1	19.9
21-Feb	23	-0.06	0.18	5.51	3.4	6.5	11.3	7.97	17.90	215.00	5.0	7.6	9.3
22-Feb	23	-0.06	-0.06	-0.05	2.5	3.6	5.1	7.99	8.02	8.09	5.5	7.2	8.2
23-Feb	61	-0.06	-0.05	-0.05	3.7	5.8	12.0	4.16	7.96	8.08	2.9	3.8	6.2
24-Feb	96	-0.05	-0.05	-0.05	4.2	7.5	15.1	7.94	7.98	8.04	3.8	8.9	12.8
25-Feb	95	-0.05	-0.05	-0.05	8.2	12.2	20.9	7.99	8.03	8.12	9.8	12.2	14.1
26-Feb	71	-0.05	-0.05	-0.05	10.5	15.0	23.0	7.99	8.03	8.07	8.8	9.6	10.5
27-Feb	43	-0.08	-0.06	-0.05	0.0	7.6	12.9	7.99	8.02	8.04	8.7	9.3	9.7
28-Feb	22	0.12	0.28	1.95	248.7	256.8	261.4	7.35	7.46	7.88	3.4	7.9	12.1
09-Mar	37	0.11	0.21	1.95	248.7	256.7	261.4	7.35	7.43	7.88	3.4	8.1	12.1
10-Mar	94	0.11	0.14	0.34	247.1	252.3	256.6	7.33	7.39	7.44	1.2	4.1	7.8
11-Mar	96	0.10	0.16	0.31	219.5	244.4	262.3	7.35	7.48	7.65	2.1	8.6	39.7
12-Mar	96	0.10	0.13	0.20	186.5	206.8	217.4	7.55	7.66	7.82	16.3	22.3	31.5
13-Mar	96	0.11	0.15	0.30	174.0	181.4	186.5	7.61	7.74	7.86	11.9	16.3	20.2
14-Mar	96	0.12	0.16	0.30	56.8	108.9	175.3	7.44	7.62	7.78	4.5	15.5	37.9
15-Mar	96	0.12	0.17	0.29	48.7	80.1	95.3	7.33	7.64	7.98	4.4	7.3	11.7
16-Mar	96	0.11	0.17	0.28	33.8	46.1	52.2	7.24	7.66	8.17	3.3	5.0	6.8
17-Mar	96	0.11	0.18	0.30	33.9	37.3	43.9	7.19	7.82	8.55	1.5	3.6	4.9
18-Mar	96	0.12	0.18	0.34	20.2	25.4	36.5	7.78	8.49	9.07	0.0	0.9	2.6
19-Mar	96	0.11	0.12	0.17	16.8	19.1	21.3	7.50	8.25	8.74	0.0	0.5	1.0
20-Mar	96	0.11	0.14	0.23	0.0	21.8	25.9	7.45	8.07	8.62	0.0	0.7	6.1
21-Mar	96	0.11	0.13	0.21	23.5	27.2	32.0	7.37	8.05	8.74	0.2	1.6	8.6
22-Mar	96	0.11	0.13	0.19	28.6	35.2	41.6	7.48	8.29	8.82	1.0	1.9	6.0
23-Mar	96	0.10	0.17	0.30	40.3	45.9	52.1	7.43	8.10	8.44	1.5	5.4	25.8
24-Mar	96	0.10	0.17	0.35	50.5	54.3	58.4	7.40	7.94	8.46	4.5	6.9	11.5
25-Mar	96	0.10	0.17	0.29	49.8	55.7	57.9	7.43	7.82	8.24	1.6	4.1	6.9
26-Mar	96	0.10	0.19	0.37	41.9	51.4	54.9	7.36	7.85	8.43	0.7	2.7	4.1
27-Mar	96	0.11	0.19	0.40	44.1	46.4	48.6	7.42	7.81	8.27	1.1	2.2	3.7
28-Mar	96	0.10	0.15	0.27	44.4	45.7	47.1	7.37	7.95	8.56	1.2	2.9	99.3
29-Mar	96	0.10	0.18	0.31	36.0	45.8	47.4	7.70	8.15	8.74	0.6	1.5	2.1
30-Mar	96	0.10	0.17	0.33	41.2	46.1	47.5	7.67	8.17	8.79	0.5	1.3	1.8
31-Mar	96	0.10	0.18	0.36	39.6	46.1	48.2	7.68	8.02	8.42	0.8	1.2	1.9
01-Apr	96	0.10	0.20	0.34	44.2	45.4	46.7	7.58	8.04	8.56	0.4	1.1	2.0
02-Apr	96	0.10	0.22	0.38	44.7	45.7	48.6	7.48	7.86	8.24	0.3	1.0	1.6
03-Apr	96	0.11	0.62	1.61	45.3	137.6	232.5	7.27	7.54	8.01	0.3	8.1	18.3
04-Apr	96	1.08	2.59	4.41	226.3	240.5	248.9	7.20	7.30	7.38	10.4	15.8	20.8
05-Apr	96	2.65	3.58	4.39	227.0	249.7	259.0	7.17	7.22	7.29	11.6	16.0	20.1
06-Apr	96	3.91	4.86	5.75	245.4	261.6	267.3	7.15	7.19	7.22	12.6	18.1	24.1
07-Apr	96	4.20	4.88	5.56	236.2	253.7	264.8	7.16	7.19	7.23	13.5	21.0	30.5
08-Apr	96	4.07	4.89	5.71	239.5	247.4	252.8	7.17	7.21	7.27	16.3	22.0	27.2
09-Apr	96	4.28	5.01	6.36	0.1	243.6	247.7	7.12	7.29	7.37	4.9	24.7	39.0
10-Apr	96	3.91	4.90	5.91	240.7	241.9	244.5	7.33	7.40	7.47	19.0	23.6	28.6
11-Apr	96	4.71	5.62	6.69	239.7	240.8	241.8	7.45	7.52	7.57	16.3	22.0	28.0
12-Apr	96	5.43	6.23	7.03	240.6	242.4	244.5	7.54	7.62	7.71	18.5	23.5	30.4
13-Apr	96	5.35	6.44	7.28	243.6	245.1	246.5	7.69	7.77	7.85	17.1	23.1	36.4
14-Apr	96	5.99	7.45	9.24	246.3	249.1	252.4	7.79	7.85	7.91	16.8	20.1	24.0
15-Apr	96	6.58	7.07	7.63	250.0	251.5	253.1	7.86	7.92	7.98	16.6	19.5	25.5
16-Apr	96	5.73	6.45	7.12	253.0	254.5	256.1	7.92	7.98	8.06	14.3	17.2	24.6
17-Apr	96	5.70	6.63	7.54	252.0	254.2	256.7	7.93	7.98	8.05	13.5	17.4	25.5
18-Apr	96	6.03	7.72	10.12	258.7	261.4	265.1	8.05	8.09	8.14	12.0	14.5	18.4
19-Apr	96	6.57	8.16	10.03	261.3	263.8	266.5	8.09	8.13	8.17	11.4	14.0	17.3
20-Apr	96	7.15	9.14	11.75	263.4	266.1	269.6	8.12	8.17	8.21	11.4	14.0	21.4
21-Apr	55	7.71	8.35	9.77	264.8	265.6	267.1	8.17	8.19	8.22	12.7	18.0	137.7

*Based on temperature readings

RSEM-R6E													
Day	**Number of measurements***	**Temperature (°C)**			**Specific Conductivity (µS/cm)**			**pH**			**Turbidity (NTU)**		
		Minimum	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**	**Mean**	**Maximum**
01-Jan	96	0.15	0.19	0.26	671.9	677.3	683.1	8.25	8.26	8.28	0.0	2.7	19.1
02-Jan	96	0.17	0.18	0.21	678.1	685.7	699.6	8.25	8.25	8.26	0.0	2.7	20.1
03-Jan	96	0.13	0.16	0.25	683.2	694.6	720.7	8.24	8.25	8.25	0.0	2.0	27.5
04-Jan	96	0.17	0.18	0.21	684.2	701.8	730.8	8.23	8.25	8.25	0.0	0.2	5.6
05-Jan	96	0.15	0.18	0.23	701.2	708.1	717.3	8.23	8.24	8.25	0.0	0.3	12.1
06-Jan	96	0.11	0.13	0.16	686.5	709.6	731.4	8.22	8.23	8.24	0.0	0.5	14.5
07-Jan	96	0.08	0.10	0.20	723.7	736.7	749.9	8.20	8.21	8.22	0.0	0.4	9.1
08-Jan	96	0.07	0.09	0.13	740.4	755.7	773.7	8.18	8.19	8.20	0.0	1.2	25.0
09-Jan	96	0.06	0.08	0.11	753.0	767.4	780.8	8.14	8.16	8.18	0.0	2.0	27.5
10-Jan	96	0.07	0.08	0.09	760.5	781.4	792.6	8.11	8.13	8.14	0.0	1.0	14.6
11-Jan	86	0.06	0.07	0.08	782.5	794.6	807.0	8.09	8.10	8.11	0.0	0.9	25.6
27-Jan	38	0.09	0.11	0.36	946.2	953.2	963.3	7.77	7.83	7.87	0.1	13.1	52.1
28-Jan	96	0.09	0.10	0.11	950.9	952.8	955.1	7.78	7.80	7.84	0.0	2.7	48.5
29-Jan	96	0.08	0.10	0.13	934.1	944.3	950.9	7.82	7.83	7.85	0.0	1.1	11.3
30-Jan	96	0.12	0.18	0.37	769.9	879.6	934.0	7.75	7.82	7.85	0.0	22.7	118.5
31-Jan	96	0.12	0.16	0.27	403.7	555.0	770.0	7.84	8.08	8.42	19.6	34.7	58.1
01-Feb	96	0.16	0.17	0.22	392.3	395.5	402.1	8.42	8.47	8.49	7.5	16.9	86.0
02-Feb	96	0.11	0.14	0.16	392.2	394.0	395.9	8.42	8.45	8.47	3.4	8.6	18.7
03-Feb	96	0.10	0.11	0.14	393.2	395.5	397.5	8.41	8.44	8.46	1.8	7.0	233.5
04-Feb	96	0.10	0.11	0.18	397.3	398.3	399.1	8.37	8.40	8.43	0.1	2.5	5.0
05-Feb	96	0.10	0.11	0.14	396.0	399.9	401.3	8.37	8.38	8.39	0.0	2.9	150.2
06-Feb	96	0.10	0.11	0.13	401.1	403.2	406.1	8.35	8.38	8.40	0.0	0.9	2.6
07-Feb	96	0.10	0.11	0.14	405.2	406.8	409.1	8.34	8.36	8.40	0.0	2.6	48.9
08-Feb	96	0.10	0.10	0.14	409.1	412.1	416.7	8.29	8.33	8.35	0.0	0.5	1.6
09-Feb	96	0.10	0.10	0.14	416.5	420.6	424.1	8.30	8.32	8.34	0.0	0.2	1.3
10-Feb	96	0.10	0.10	0.10	423.7	427.9	429.6	8.26	8.27	8.31	0.0	0.1	0.7
11-Feb	96	0.10	0.11	0.16	429.3	433.1	437.3	8.23	8.26	8.27	0.0	0.0	0.5
12-Feb	96	0.10	0.10	0.11	437.2	441.8	446.1	8.22	8.24	8.25	0.0	0.0	0.5
13-Feb	96	0.09	0.10	0.14	446.1	452.9	458.1	8.20	8.22	8.24	0.0	0.0	0.5
14-Feb	59	0.10	0.10	0.10	457.2	461.4	466.4	8.18	8.20	8.21	0.0	0.0	0.1
10-Mar	6	0.05	0.31	0.89	402.8	465.5	746.7	7.36	8.44	8.69	4.8	63.0	84.2
11-Mar	55	0.01	0.08	0.89	363.9	406.8	426.9	8.59	8.65	8.69	46.3	57.9	84.2
12-Mar	96	-0.01	0.00	0.03	391.9	397.7	410.0	8.57	8.63	8.69	33.7	44.0	77.4
13-Mar	96	-0.02	0.00	0.05	393.5	394.9	396.7	8.49	8.55	8.61	36.7	41.1	51.6
14-Mar	96	0.02	0.07	0.18	395.8	399.0	404.7	8.42	8.47	8.51	27.3	35.3	46.4
15-Mar	96	0.02	0.06	0.11	403.5	408.5	416.9	8.35	8.41	8.45	17.2	24.5	34.0
16-Mar	96	-0.02	0.03	0.13	404.5	408.5	413.2	8.22	8.28	8.38	13.1	16.0	21.0
17-Mar	96	-0.02	0.07	0.25	409.3	410.2	411.5	8.17	8.22	8.27	10.9	17.6	449.3
18-Mar	96	-0.01	0.08	0.17	391.9	409.4	410.6	8.14	8.18	8.22	11.0	12.3	18.1
19-Mar	96	-0.04	-0.02	-0.01	409.0	411.2	413.9	8.11	8.15	8.20	9.5	10.7	13.4
20-Mar	96	-0.01	-0.01	-0.01	412.7	415.7	418.1	8.10	8.13	8.16	8.7	9.6	12.0
21-Mar	96	-0.15	-0.04	0.00	0.6	357.9	446.0	7.71	8.08	8.28	0.0	7.1	23.1
22-Mar	96	-1.00	-0.69	-0.16	0.9	1.2	1.3	7.19	7.44	7.70	0.0	0.6	3.2
23-Mar	96	-1.67	-0.85	-0.23	0.7	1.0	1.2	7.40	7.55	7.74	3.2	18.6	45.6
24-Mar	96	-0.59	-0.27	-0.02	0.7	167.9	582.4	7.62	7.82	8.35	8.0	45.8	637.8
25-Mar	96	-0.07	-0.03	-0.01	488.5	880.0	1526.3	8.12	8.35	8.85	9.7	27.9	397.9
26-Mar	96	-0.02	-0.01	-0.01	223.5	410.2	537.6	8.67	8.78	8.89	21.0	164.5	1116.1
27-Mar	96	-0.01	-0.01	-0.01	189.5	336.9	400.3	8.54	8.70	8.8	17.3	22.3	107.8
28-Mar	96	-0.01	-0.01	-0.01	195.0	233.9	281.3	8.41	8.49	8.69	19.0	21.1	25.8
29-Mar	96	-0.01	-0.01	-0.01	131.5	177.7	258.4	8.34	8.40	8.64	17.7	19.5	22.7
30-Mar	96	-0.01	-0.01	-0.01	121.5	130.3	147.6	8.29	8.35	8.65	17.1	21.7	73.9
31-Mar	96	-0.01	-0.01	-0.01	101.7	116.5	121.4	8.25	8.38	8.53	18.3	29.1	97.8
01-Apr	96	-0.01	-0.01	0.01	78.7	103.9	134.6	8.51	8.65	9.35	11.3	76.0	4552.5
02-Apr	96	0.00	0.17	0.62	73.7	114.0	134.7	8.15	8.73	8.91	12.1	17.5	303.6
03-Apr	49	-0.09	0.09	0.30	90.3	96.5	101.3	8.31	8.53	8.74	11.1	15.9	25.0
14-Apr	40	6.95	8.44	9.58	286.9	290.1	292.0	8.38	8.46	8.49	84.4	100.7	134.5
15-Apr	64	5.56	6.54	8.01	288.6	290.3	292.2	8.41	8.45	8.49	78.8	89.5	101.7
16-Apr													
17-Apr	9	7.38	7.64	8.01	290.4	291.4	291.9	8.44	8.45	8.47	82.5	87.0	90.4

*Based on temperature readings

Appendix 3-B: 2024 In Situ Field Measurement Water Quality Data

PEACE RIVER
HYDRO PARTNERS

Appendix 3-B: 2024 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	pH-field	Temperature	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	°Celsius	uS/cm	NTU	NTU	NTU
85-EOP	2024-01-30	7.8	5.4	1015	49	52	49
85-EOP	2024-03-15	8.5	5.9	1090	37.7	37.2	37.7
85-EOP	2024-03-17	8.2	7.5	928	19.6	19.4	19.6
85-EOP	2024-05-01	8.6	10.6	871	4.5	4.4	4.5
85-EOP	2024-06-16	7.6	14.8	977	18.7	17.3	18.7
85-EOP	2024-06-15	8.2	12.7	979	47	47.2	47
85-EOP	2024-06-17	8.2	16.1	1008	5	4.8	5
85-EOP	2024-06-24	8.3	13.5	904	74.3	74.1	74.3
85-EOP	2024-06-27	8.1	21.6	1089	5.6	5.8	5.6
85-EP	2024-02-01	8	8.4	1536	13.4	13.5	13.4
85-EP	2024-04-05	8.3	4.1	104	2.8	2.9	2.8
85-EP	2024-04-18	8.3	10.3	782	4.6	4.7	4.6
85-EP	2024-04-24	7.4	11.1	841	15.2	14.1	15.2
85-EP	2024-05-03	8.2	16.5	705	6.8	6.9	6.8
85-EP	2024-05-09	8.3	16.1	808	7.6	7.8	7.6
85-EP	2024-05-17	8.3	14.4	1014	11.9	11.8	11.9
85-EP	2024-05-27	8.6	18.7	1051	5.1	5	5.1
85-EP	2024-05-29	8.6	16.5	1035	4.6	4.2	4.6
85-EP	2024-06-07	8.7	17.8	876	17.2	17.7	17.2
85-EP	2024-06-15	8.4	13.5	1030	6.1	6.1	6.1
85-EP	2024-06-24	8.1	16.7	948	3.4	3.4	3.4
85-EP	2024-06-26	8.2	18.9	881	4.1	4	4.1
85-IDZ	2024-01-30	8	4.9	413	70	69	70
85-IDZ	2024-03-15	8.4	5.7	675	33	32	33
85-IDZ	2024-05-01	8.5	13.6	1161	7.3	7.3	7.3
85-IDZ	2024-06-15	8.4	12.2	472	98.3	98.7	98.3
85-IDZ	2024-06-16	7.5	17.5	1075	12.8	13	12.8
85-IDZ	2024-06-17	7.9	19.7	1115	5.4	5.1	5.4
85-IDZ	2024-06-24	8	13.7	433	35	39	35
85-IDZ	2024-06-27	8.5	21.6	1103	5.1	4.9	5.1
85-WP	2024-04-05	8.3	2.9	265	4.1	4.1	4.1
85-WP	2024-04-18	8.4	10	575	7.2	6.9	7.2
85-WP	2024-04-24	7.8	11.6	826	14.9	14.1	14.9
85-WP	2024-05-03	8.4	13.1	855	6.5	6.2	6.5
85-WP	2024-05-09	8.5	17	865	31.4	33.9	31.4
85-WP	2024-05-17	8.5	14.3	1020	26.6	22.6	26.6
85-WP	2024-05-27	8.7	19.3	985	33.3	33.3	33.3
85-WP	2024-05-29	8.9	16.6	992	13.4	12.9	13.4
85-WP	2024-06-07	8.4	18.1	935	3.8	3.7	3.8
85-WP	2024-06-15	8.5	12.6	961	30.6	25.8	30.6
85-WP	2024-06-24	8.3	16.6	906	15.6	15.2	15.6
85-WP	2024-06-26	8.2	20.6	930	3.8	3.9	3.8
AK_Pond	2024-01-02	9.7	4.6	413	3.6	3.7	3.6
AK_Pond	2024-01-03	9.4	4.6	410	3	3	3
AK_Pond	2024-01-04	9.7	4.9	397	3.2	3.1	3.2
AK_Pond	2024-01-07	9.5	2.9	407	4.7	4.6	4.7
AK_Pond	2024-01-09	9.5	3.8	433	5.1	5.1	5.1
AK_Pond	2024-01-11	9.7	3.1	378	23.1	23.1	23.1
AK_Pond	2024-01-13	9.8	2.4	381	19.6	19.6	19.6
AK_Pond	2024-01-15	9.8	6.8	351	19.3	22.3	19.3
AK_Pond	2024-01-17	9.7	5.3	387	21	20.6	21
AK_Pond	2024-01-18	9.8	2.4	340	32.8	31.8	32.8
AK_Pond	2024-01-19	9.8	1.7	359	24.3	24.4	24.3
AK_Pond	2024-01-21	9.7	2.2	348	16.4	16.5	16.4
AK_Pond	2024-01-23	9.6	2	361	11.9	11.8	11.9
AK_Pond	2024-01-25	9.5	3	338	5.9	5.9	5.9
AK_Pond	2024-01-27	9.4	4.8	337	6.1	5.8	6.1
AK_Pond	2024-01-28	9.2	5.5	335	7.4	7.5	7.4
AK_Pond	2024-01-30	9.2	7.8	910	30.9	30.6	30.9
AK_Pond	2024-01-31	8.7	6.1	315	25.8	25.8	25.8
AK_Pond	2024-02-01	9.2	4.2	378	29.5	29.2	29.5
AK_Pond	2024-02-02	9.1	4.7	354	18.7	18.8	18.7
AK_Pond	2024-02-03	8.9	3.8	390	24.3	24.3	24.3
AK_Pond	2024-02-04	9.1	6.2	413	18.3	18.2	18.3
AK_Pond	2024-02-05	9.1	4.6	368	41.6	41.7	41.6
AK_Pond	2024-02-06	9.4	4.2	356	24.1	24.1	24.1
AK_Pond	2024-02-07	9.9	6.5	343	59	59	59
AK_Pond	2024-02-08	9.5	4.6	338	4.8	4.8	4.8
AK_Pond	2024-02-09	9.4	4.2	360	61	61	61
AK_Pond	2024-02-11	9.5	5.2	321	23.1	23.7	23.1
AK_Pond	2024-02-12	9.3	6.6	334	14.8	15.3	14.8
AK_Pond	2024-02-13	9.5	5	320	14	13.9	14
AK_Pond	2024-02-14	9.3	5.8	327	15.9	15.3	15.9
AK_Pond	2024-02-15	9.4	5	343	15.9	15.9	15.9
AK_Pond	2024-02-17	9.4	6.1	324	21	21.1	21
AK_Pond	2024-02-18	9.3	4.5	343	14.7	14.9	14.7
AK_Pond	2024-02-19	9.4	3.5	329	17.1	16.5	17.1
AK_Pond	2024-02-20	9.2	4.8	348	20.1	20.3	20.1
AK_Pond	2024-02-21	9	6.4	390	18	18.2	18
AK_Pond	2024-02-22	9	6.5	314	6.3	6.3	6.3
AK_Pond	2024-02-23	8.9	5	344	36.9	36.9	36.9
AK_Pond	2024-02-24	8.9	4.8	339	43.3	43.4	43.3
AK_Pond	2024-02-25	9.2	3.1	328	75.6	75.5	75.6
AK_Pond	2024-02-26	9.1	2.7	351	40.5	41.3	40.5
AK_Pond	2024-02-27	9.3	4.9	336	29.4	29.4	29.4
AK_Pond	2024-02-28	8.9	2.8	412	26.7	28.5	26.7
AK_Pond	2024-02-29	9.4	5.2	190	15.4	15.5	15.4
AK_Pond	2024-03-01	9.3	5.8	333	24.5	23.8	24.5
AK_Pond	2024-03-02	9.3	4.1	262	29.2	27.9	29.2
AK_Pond	2024-03-03	9.2	2.5	327	42.3	42.5	42.3
AK_Pond	2024-03-05	9.1	4.2	324	42.5	39.7	42.5
AK_Pond	2024-03-06	9.1	4.9	327	26.1	26.1	26.1
AK_Pond	2024-03-08	9.6	6	294	14.4	14.6	14.4
AK_Pond	2024-03-09	9.6	6.2	305	58.8	61.7	58.8
AK_Pond	2024-03-10	9.4	4.8	313	36.2	36.5	36.2
AK_Pond	2024-03-11	9.5	6.5	239	41	40.9	41
AK_Pond	2024-03-12	9.5	6.6	328	82.2	81.1	82.2
AK_Pond	2024-03-13	10.7	8.4	269	82.6	82.2	82.6
AK_Pond	2024-03-14	10	6.5	309	103.7	103.8	103.7
AK_Pond	2024-03-15	9.4	7.5	333	105	106	105
AK_Pond	2024-03-16	9.4	8.2	372	73	74	73

Appendix 3-B: 2024 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	pH-field	Temperature	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	°Celsius	uS/cm	NTU	NTU	NTU
AK_Pond	2024-03-17	9.6	10.9	379	243	247	243
AK_Pond	2024-03-18	9.9	6.6	344	278	276	278
AK_Pond	2024-03-19	9	6.5	402	48.4	49.4	48.4
AK_Pond	2024-03-20	9.5	5.2	416	21.1	21.6	21.1
AK_Pond	2024-03-21	9.3	5.4	384	12.4	12.5	12.4
AK_Pond	2024-03-22	9.2	5.6	563	23.2	21.4	23.2
AK_Pond	2024-03-23	9.4	6.3	470	14.1	13.7	14.1
AK_Pond	2024-03-24	9.2	5.8	381	7.8	7.7	7.8
AK_Pond	2024-03-25	9.4	6.8	386	8	7.8	8
AK_Pond	2024-03-26	9.5	6.9	343	12.5	12.7	12.5
AK_Pond	2024-03-27	9.5	7.7	359	22.5	22.1	22.5
AK_Pond	2024-03-28	9.4	7.2	277	13.1	13	13.1
AK_Pond	2024-03-29	9.5	8	273	6.7	6.4	6.7
AK_Pond	2024-03-30	9.7	7.6	291	7.6	7.7	7.6
AK_Pond	2024-03-31	9.4	9.8	238	22.5	23.1	22.5
AK_Pond	2024-04-01	9.3	9	340	87.2	78.7	87.2
AK_Pond	2024-04-02	9.2	8.2	631	83.9	78.9	83.9
AK_Pond	2024-04-03	9.4	9.1	267	28.9	29.1	28.9
AK_Pond	2024-04-04	9.5	10.3	274	58.8	60.3	58.8
AK_Pond	2024-04-05	9.5	9.1	282	18.8	18.6	18.8
AK_Pond	2024-04-06	9.6	7.5	270	6.1	6.1	6.1
AK_Pond	2024-04-07	9.4	13.1	272	16.3	16	16.3
AK_Pond	2024-04-09	9.4	9.6	311	6.2	6.3	6.2
AK_Pond	2024-04-08	9.4	11.6	256	15.5	15.3	15.5
AK_Pond	2024-04-10	9.3	10.4	269	6.3	6.3	6.3
AK_Pond	2024-04-11	9.2	10.3	267	6.6	6.6	6.6
AK_Pond	2024-04-12	9.5	12.7	298	62	63	62
AK_Pond	2024-04-13	9.5	6.7	342	69	68	69
AK_Pond	2024-04-14	9.2	13	256	79.1	75	79.1
AK_Pond	2024-04-15	9.5	8	247	18.4	17.5	18.4
AK_Pond	2024-04-16	9.4	10.1	344	13.5	13.5	13.5
AK_Pond	2024-04-17	9.5	10.2	263	12.4	12.6	12.4
AK_Pond	2024-04-18	9.2	12.4	282	17.7	17.9	17.7
AK_Pond	2024-04-20	9.3	13	272	11.1	7.4	11.1
AK_Pond	2024-04-19	9.5	10	281	20.5	21.1	20.5
AK_Pond	2024-04-21	9	10.6	300	11	7.3	11
Area_24_East	2024-04-15	8.2	9.6	422	16.7	17	16.7
Area_24_East	2024-04-18	8.1	11.8	442	15.3	15.4	15.3
Area_30_EOP	2024-01-30	7.7	5.2	880	20.7	20.7	20.7
Area_30_EOP	2024-03-16	7.9	8.3	948	3.3	3.4	3.3
Area_30_EOP	2024-05-02	7.3	15.1	1688	3.8	4.2	3.8
Area_30_EOP	2024-06-02	7.9	24.9	3130	15.8	15.8	15.8
Area_30_EOP	2024-06-15	7.3	9.6	1215	57.3	56.1	57.3
Area_30_EOP	2024-06-16	8	11.4	1551	5.6	5.7	5.6
Area_30_EOP	2024-06-24	7.1	15.9	1892	11.2	12.1	11.2
Area_30_EOP	2024-06-26	7.8	18.2	1370	5.7	5.9	5.7
Area_30_SP	2024-03-19	6.8	3.2	1677	4	4	4
Area_30_SP	2024-04-03	7.7	4.6	1193	5.4	5.7	5.4
Area_30_SP	2024-04-08	7.7	9.8	970	3.7	4	3.7
Area_30_SP	2024-04-11	7.5	9.9	1336	13	12.6	13
Area_30_SP	2024-04-15	8.1	9.7	1114	7.2	7.8	7.2
Area_30_SP	2024-04-18	7.5	10.3	1779	11	7.4	11
Area_30_SP	2024-04-22	8	13.9	1960	15.4	15.7	15.4
Area_30_SP	2024-04-26	8.1	9.9	2040	11.3	11.1	11.3
Area_30_SP	2024-05-06	8	12.8	1718	4.4	4.4	4.4
Area_30_SP	2024-05-09	8	17.6	1770	6.9	6.9	6.9
Area_30_SP	2024-05-12	8.2	19.7	2230	4.8	4.8	4.8
Area_30_SP	2024-05-17	7.9	16.3	2400	3.8	3.7	3.8
Area_30_SP	2024-05-23	7.9	21.1	2440	3.7	3.8	3.7
Area_30_SP	2024-05-27	8.1	18.1	2800	4.8	5	4.8
Area_30_SP	2024-05-29	7.9	15.6	2630	11.7	11.3	11.7
Area_30_SP	2024-05-31	7.9	20.1	2900	12.4	12.3	12.4
Area_30_SP	2024-06-06	7.7	20	2720	6.3	6.5	6.3
Area_30_SP	2024-06-09	8.1	16.2	2170	3.6	4.6	3.6
Area_30_SP	2024-06-30	8.3	27.5	2320	4	3.9	4
Area_A_N_Ditch	2024-01-04	7.7	3	556	11.1	11.3	11.1
Area_A_N_Ditch	2024-01-28	7.2	6	785	15	15	15
Area_A_N_Ditch	2024-02-04	7.9	4.3	568	19.8	19.9	19.8
Area_A_N_Ditch	2024-02-06	7.7	5.3	566	7	7	7
Area_A_N_Ditch	2024-02-08	7.6	5	656	12.9	12.7	12.9
Area_A_N_Ditch	2024-02-11	7.9	3.2	675	7.4	6.9	7.4
Area_A_N_Ditch	2024-02-13	7.9	4.9	778	15.4	15	15.4
Area_A_N_Ditch	2024-03-12	8.6	6.7	402	14.5	14.5	14.5
Area_A_N_Ditch	2024-03-16	7.7	8.5	340	12.3	12.2	12.3
Area_A_N_Ditch	2024-03-19	7.6	2.8	351	3.7	3.7	3.7
Area_A_N_Ditch	2024-03-25	8.1	4.6	451	19.8	20.6	19.8
Area_A_N_Ditch	2024-03-27	8.1	4.9	366	4.1	4.2	4.1
Area_A_N_Ditch	2024-04-01	8.6	6.1	278	13.6	12.8	13.6
Area_A_N_Ditch	2024-04-03	8	6.9	254	3.5	3.5	3.5
Area_A_N_Ditch	2024-04-08	7.9	8	236	4	4	4
Area_A_N_Ditch	2024-04-11	7.9	9.6	214	4	4.2	4
Area_A_N_Ditch	2024-04-14	7.8	14.1	218	26.7	26.6	26.7
Area_A_N_Ditch	2024-04-20	8.2	13.8	309	17.9	16.9	17.9
Area_A_N_Ditch	2024-04-22	8.1	14.4	236	6.9	6.9	6.9
Area_A_N_Ditch	2024-04-26	8.5	10.5	336	3.3	3.3	3.3
Area_A_N_Ditch	2024-05-02	8.2	14.3	353	5.7	5.6	5.7
Area_A_N_Ditch	2024-05-06	8.3	11.1	389	5.9	5.9	5.9
Area_A_N_Ditch	2024-05-09	8.2	19.5	380	8	8.1	8
Area_A_N_Ditch	2024-05-12	8.2	19.7	395	15.3	15.5	15.3
Area_A_N_Ditch	2024-05-17	8.1	15.6	475	13.8	13.7	13.8
Area_A_N_Ditch	2024-05-23	7.9	19.9	578	20.5	20.8	20.5
Area_A_N_Ditch	2024-05-27	8.1	18.2	520	12.8	12.8	12.8
Area_A_N_Ditch	2024-05-29	7.9	16.7	465	21.3	21.4	21.3
Area_A_N_Ditch	2024-06-06	7.8	19.8	431	18.1	18.1	18.1
Area_A_N_Ditch	2024-06-16	7.7	16.6	533	28.7	28.8	28.7
Area_A_N_Ditch	2024-06-23	7.8	23	502	4.2	4.2	4.2
Area_A_N_Ditch	2024-06-27	7.7	22.8	571	6.5	6.5	6.5
Area_A_NE_Sump	2024-04-15	8.4	8.9	658	6.6	6.6	6.6
Area_A_NE_Sump	2024-06-09	8.3	17.9	804	3.4	3.4	3.4
Area_A_NE_Sump	2024-06-15	8.2	14.9	944	5.1	5	5.1
Area_A_NE_Sump	2024-06-27	8	21.8	1093	2.5	2.4	2.5

Appendix 3-B: 2024 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	pH-field	Temperature	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	°Celsius	uS/cm	NTU	NTU	NTU
L3-DC-DS	2024-03-15	8.3	4.1	456	30.2	30.2	30.2
L3-DC-DS	2024-06-16	8	11	1193	3.6	3.6	3.6
L3-DC-DS	2024-06-24	7.4	13.8	868	30	31	30
L3-DC-US	2024-03-15	8.3	7	429	24.1	24	24.1
L3-DC-US	2024-06-16	7.9	11	1610	4.2	4.3	4.2
L3-DC-US	2024-06-24	7.3	12.5	1260	748	756	748
L3-DC-West-EOP	2024-03-12	8.6	5.5	775	54	53.4	54
L3-DC-West-EOP	2024-03-15	8.6	4.4	527	30.6	30.8	30.6
L3-DC-West-EOP	2024-03-17	7	5.9	891	43	37	43
L3-DC-West-EOP	2024-05-01	8.5	14	767	16.3	16.3	16.3
L3-DC-West-EOP	2024-06-16	8.2	12.5	807	32.4	33.6	32.4
L3-DC-West-EOP	2024-06-24	7.1	15.4	771	70	73	70
L6-SP	2024-03-14	8.6	5.9	367	68.6	68.4	68.6
L6-SP	2024-03-17	8.6	5.6	467	19.9	19.9	19.9
L6-SP	2024-03-18	8.5	6.7	409	20	20.3	20
L6-SP	2024-03-19	7.6	4.4	472	14	14	14
L6-SP	2024-03-24	7.8	4.3	456	12.4	12.3	12.4
L6-SP	2024-03-27	8.6	3.3	385	6.3	7	6.3
L6-SP	2024-04-01	8.9	5.5	286	5.4	5.5	5.4
L6-SP	2024-04-03	9.1	6	248	3.7	3.6	3.7
L6-SP	2024-04-05	8.6	4.7	203	3.4	3.5	3.4
L6-SP	2024-04-09	8.4	8	480	3.8	4	3.8
L6-SP	2024-04-10	8.5	8.8	561	3.5	3.4	3.5
L6-SP	2024-04-11	9	8.9	629	3.9	3.8	3.9
L6-SP	2024-04-15	8.3	10	623	3.4	3.3	3.4
L6-SP	2024-04-20	8.3	13.3	727	3.1	2.9	3.1
MWTF-SLP-R6	2024-01-01	7.5	4.8	457	3	3	3
MWTF-SLP-R6	2024-01-02	9	2.2	450	3	3	3
MWTF-SLP-R6	2024-01-03	7.5	2.9	442	3.8	3.8	3.8
MWTF-SLP-R6	2024-01-04	7.9	3	423	3.6	3.6	3.6
MWTF-SLP-R6	2024-01-05	7.8	3.1	434	3.4	3.4	3.4
MWTF-SLP-R6	2024-01-06	8	2.3	439	3.5	3.4	3.5
MWTF-SLP-R6	2024-01-07	7.4	1	438	3.7	3.8	3.7
MWTF-SLP-R6	2024-01-08	7.8	2	440	4.3	4.3	4.3
MWTF-SLP-R6	2024-01-09	8	4.6	435	4.6	4.2	4.6
MWTF-SLP-R6	2024-01-10	7.7	2.4	455	4	4	4
MWTF-SLP-R6	2024-01-12	7.6	5.6	423	6.7	6.8	6.7
MWTF-SLP-R6	2024-01-11	8.1	2	417	4.7	4.7	4.7
MWTF-SLP-R6	2024-01-13	7.6	2.7	390	12.6	12.3	12.6
MWTF-SLP-R6	2024-01-14	7.5	4.4	372	12.6	12.3	12.6
MWTF-SLP-R6	2024-01-15	7.8	2.3	410	12.6	12.5	12.6
MWTF-SLP-R6	2024-01-16	7.6	2.2	385	12.3	12.4	12.3
MWTF-SLP-R6	2024-01-17	7.8	2.7	382	12.7	12.3	12.7
MWTF-SLP-R6	2024-01-18	7.3	2.6	379	12	12.1	12
MWTF-SLP-R6	2024-01-19	7.7	2.7	380	11.9	12	11.9
MWTF-SLP-R6	2024-01-20	8.2	3.1	373	12.8	12.9	12.8
MWTF-SLP-R6	2024-01-21	7.9	1.4	358	13.3	12.7	13.3
MWTF-SLP-R6	2024-01-22	7.2	2.6	357	11.9	11.9	11.9
MWTF-SLP-R6	2024-01-23	9	2.4	346	7.4	7.5	7.4
MWTF-SLP-R6	2024-01-24	8.1	1	358	6.8	6.6	6.8
MWTF-SLP-R6	2024-01-25	8	1.7	352	5.7	5.5	5.7
MWTF-SLP-R6	2024-01-26	7.9	3	347	5.1	5	5.1
MWTF-SLP-R6	2024-01-27	7.9	2.9	346	4.6	4.6	4.6
MWTF-SLP-R6	2024-01-28	7.6	3.2	347	4.8	4.8	4.8
MWTF-SLP-R6	2024-01-29	8.1	5.1	348	6	6.1	6
MWTF-SLP-R6	2024-01-30	8.1	3.9	356	13.2	13.2	13.2
MWTF-SLP-R6	2024-01-31	8.2	2.7	366	21	21	21
MWTF-SLP-R6	2024-02-01	8.1	4	361	19.4	19.6	19.4
MWTF-SLP-R6	2024-02-02	7.6	3	367	17.1	17	17.1
MWTF-SLP-R6	2024-02-03	8.3	1.9	374	17.8	17.8	17.8
MWTF-SLP-R6	2024-02-04	8.7	3.4	387	12.1	11.9	12.1
MWTF-SLP-R6	2024-02-05	7.5	3.4	393	15.6	15.6	15.6
MWTF-SLP-R6	2024-02-06	7.8	2.3	371	13.3	12.6	13.3
MWTF-SLP-R6	2024-02-07	7.8	2.2	366	6.1	6	6.1
MWTF-SLP-R6	2024-02-08	8	2.8	371	6.8	6.8	6.8
MWTF-SLP-R6	2024-02-09	8	1	369	5.3	5.2	5.3
MWTF-SLP-R6	2024-02-10	7.6	3.6	350	6.9	6.3	6.9
MWTF-SLP-R6	2024-02-11	8	3.1	339	6.7	6.6	6.7
MWTF-SLP-R6	2024-02-12	8	2.4	332	7.5	7.4	7.5
MWTF-SLP-R6	2024-02-13	8.6	2.8	325	7.1	7.1	7.1
MWTF-SLP-R6	2024-02-14	8.2	3.5	328	7	7	7
MWTF-SLP-R6	2024-02-15	8.2	2.8	346	7.8	7.9	7.8
MWTF-SLP-R6	2024-02-16	8.1	3.7	358	7.7	7.6	7.7
MWTF-SLP-R6	2024-02-17	8.2	3.9	345	7.5	7.4	7.5
MWTF-SLP-R6	2024-02-18	8	2.2	345	7.7	7.6	7.7
MWTF-SLP-R6	2024-02-19	8.2	1.6	358	6.5	6.6	6.5
MWTF-SLP-R6	2024-02-20	8.7	4.8	370	13.7	13.2	13.7
MWTF-SLP-R6	2024-02-21	7.7	4.3	350	11.4	11.3	11.4
MWTF-SLP-R6	2024-02-22	8	4.5	359	6.9	6.9	6.9
MWTF-SLP-R6	2024-02-23	6.9	2.3	349	14.1	14	14.1
MWTF-SLP-R6	2024-02-24	8.2	2.9	352	14.9	14.7	14.9
MWTF-SLP-R6	2024-02-25	8.4	1	349	15.1	15	15.1
MWTF-SLP-R6	2024-02-26	8.5	0.7	357	16.7	16.7	16.7
MWTF-SLP-R6	2024-02-27	8.1	0.8	357	15.5	15.4	15.5
MWTF-SLP-R6	2024-02-28	8.5	1.7	342	16.2	16	16.2
MWTF-SLP-R6	2024-02-29	8.4	0.8	288	14.9	14.5	14.9
MWTF-SLP-R6	2024-03-01	8.3	2.6	295	13.2	12.9	13.2
MWTF-SLP-R6	2024-03-02	8.2	0.6	305	13.3	13.4	13.3
MWTF-SLP-R6	2024-03-03	7.8	0	349	14.6	13.2	14.6
MWTF-SLP-R6	2024-03-04	7.9	2.6	341	14.5	14.4	14.5
MWTF-SLP-R6	2024-03-05	8.4	0.7	345	14.5	14.6	14.5
MWTF-SLP-R6	2024-03-06	8.2	2.5	338	14.3	14.7	14.3
MWTF-SLP-R6	2024-03-07	7.8	3.1	318	13.9	12.8	13.9
MWTF-SLP-R6	2024-03-08	8.4	4.4	310	23.8	24.1	23.8
MWTF-SLP-R6	2024-03-09	9	2.2	336	16.9	16.9	16.9
MWTF-SLP-R6	2024-03-10	8	2.3	330	7.8	8.1	7.8
MWTF-SLP-R6	2024-03-11	8.8	3.4	314	12.5	12.1	12.5
MWTF-SLP-R6	2024-03-12	8.4	6.1	412	16.3	16.3	16.3
MWTF-SLP-R6	2024-03-13	8.4	8.6	326	25.7	26.2	25.7
MWTF-SLP-R6	2024-03-14	8.2	6.7	299	24.4	24.2	24.4
MWTF-SLP-R6	2024-03-15	8.3	5.6	308	19.9	20	19.9

Appendix 3-B: 2024 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	pH-field	Temperature	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	°Celsius	uS/cm	NTU	NTU	NTU
MWTF-SLP-R6	2024-03-16	8.1	4.8	334	22.1	22	22.1
MWTF-SLP-R6	2024-03-17	8	8	358	21.2	21.2	21.2
MWTF-SLP-R6	2024-03-18	8.1	6.5	364	29.5	29.6	29.5
MWTF-SLP-R6	2024-03-19	8.5	6.2	358	23	23.5	23
MWTF-SLP-R6	2024-03-20	8.6	4.2	397	17.5	17.3	17.5
MWTF-SLP-R6	2024-03-21	8.3	3.9	405	7.6	7.6	7.6
MWTF-SLP-R6	2024-03-22	8.6	4.5	417	7.6	7.4	7.6
MWTF-SLP-R6	2024-03-23	8.1	4.2	456	6.6	6.7	6.6
MWTF-SLP-R6	2024-03-24	6.5	4.7	417	5.4	5.5	5.4
MWTF-SLP-R6	2024-03-25	8.8	4.8	399	7.5	7.6	7.5
MWTF-SLP-R6	2024-03-26	8.9	5.3	355	12.4	12.2	12.4
MWTF-SLP-R6	2024-03-27	8.2	6.4	346	8.1	8.1	8.1
MWTF-SLP-R6	2024-03-28	8.4	5.9	282	7	7.1	7
MWTF-SLP-R6	2024-03-29	8.4	7.6	257	12.1	12	12.1
MWTF-SLP-R6	2024-03-30	8	7.4	248	8	11.2	8
MWTF-SLP-R6	2024-03-31	8.6	7.8	237	14.7	12.9	14.7
MWTF-SLP-R6	2024-04-01	8.4	6.6	227	16.6	16.7	16.6
MWTF-SLP-R6	2024-04-02	8.3	6.7	295	13.7	13.2	13.7
MWTF-SLP-R6	2024-04-03	7.6	9	288	11.4	11.8	11.4
MWTF-SLP-R6	2024-04-04	8.6	11	274	12.7	12.8	12.7
MWTF-SLP-R6	2024-04-05	7.9	7	270	11.4	11.3	11.4
MWTF-SLP-R6	2024-04-06	8	8.1	263	8.2	8.1	8.2
MWTF-SLP-R6	2024-04-07	7.7	9.4	255	11.4	11.5	11.4
MWTF-SLP-R6	2024-04-09	8.5	8.9	277	6.8	6.8	6.8
MWTF-SLP-R6	2024-04-08	8.3	10.4	262	7.4	7.8	7.4
MWTF-SLP-R6	2024-04-10	7.8	9.8	268	6	6	6
MWTF-SLP-R6	2024-04-11	8.2	10	277	5.3	5.3	5.3
MWTF-SLP-R6	2024-04-12	8.1	10.3	267	5.4	5.4	5.4
MWTF-SLP-R6	2024-04-13	8.2	8.2	270	6.1	6.2	6.1
MWTF-SLP-R6	2024-04-14	8.1	10.6	269	8.1	8.1	8.1
MWTF-SLP-R6	2024-04-15	8.4	9	269	20.2	18.9	20.2
MWTF-SLP-R6	2024-04-16	8.2	9.2	271	11.8	11.6	11.8
MWTF-SLP-R6	2024-04-17	8.4	9.4	253	6.9	7.2	6.9
MWTF-SLP-R6	2024-04-18	8.2	13.4	289	7.2	7.1	7.2
MWTF-SLP-R6	2024-04-20	8	11.4	299	11.4	11.4	11.4
MWTF-SLP-R6	2024-04-19	8.4	9.6	290	11.3	11.3	11.3
MWTF-SLP-R6	2024-04-21	8.2	10.2	298	11.1	11.1	11.1
PR-IDZ	2024-03-21	8.4	4.8	217	2.2	2.1	2.2
PR-IDZ	2024-05-17	8.2	11.5	228	17.8	18.3	17.8
PR-IDZ	2024-05-17	8.4	9.3	241	18	17.7	18
PR-IDZ	2024-05-18	8.5	10.4	239	17.5	17.5	17.5
PR-IDZ	2024-05-18	8.4	12	234	16.5	17.8	16.5
PR-IDZ	2024-05-19	8.6	10	252	14.7	15.9	14.7
PR-IDZ	2024-05-19	8.5	9.8	241	16	15.1	16
PR-IDZ	2024-05-20	8.2	9.7	243	13.6	13.4	13.6
PR-IDZ	2024-05-20	8.4	11	252	12.9	13.7	12.9
PR-IDZ	2024-05-21	8.4	10.8	240	12.6	13.3	12.6
PR-IDZ	2024-05-21	8.5	11	247	13.1	12	13.1
PR-IDZ	2024-05-23	8.4	11.3	256	11.4	11.4	11.4
PR-IDZ	2024-05-23	8.1	9.8	244	12.5	12.5	12.5
PR-IDZ	2024-05-22	8.5	10.8	258	7.5	7.8	7.5
PR-IDZ	2024-05-22	8.5	11	247	7.6	7.9	7.6
PR-IDZ	2024-05-24	8.5	11.7	253	7.6	7.2	7.6
PR-IDZ	2024-05-24	8.5	13	245	7.8	7.8	7.8
PR-IDZ	2024-05-25	8.4	12.3	235	7.1	7.5	7.1
PR-IDZ	2024-05-25	8.4	13.2	241	7.8	8	7.8
PR-IDZ	2024-05-26	8.3	12.8	236	11.6	12.2	11.6
PR-IDZ	2024-05-26	8.6	12.8	226	12.3	12.6	12.3
PR-IDZ	2024-05-27	8.5	13	250	21.3	22.7	21.3
PR-IDZ	2024-05-27	8.5	12.4	233	20.8	20.5	20.8
PR-IDZ	2024-05-28	8.5	12.4	243	28.3	28.2	28.3
PR-IDZ	2024-05-28	8.4	11.6	247	29.1	28.8	29.1
PR-IDZ	2024-05-29	8.5	11.8	253	31.2	32	31.2
PR-IDZ	2024-05-29	8.5	14.9	237	30	28.3	30
PR-IDZ	2024-05-30	8.2	11.2	263	24.5	24.6	24.5
PR-IDZ	2024-05-30	8.3	12.5	258	24.3	25.6	24.3
PR-IDZ	2024-05-31	8.2	12.2	254	21.3	21.4	21.3
PR-IDZ	2024-05-31	8.3	15.4	280	21.9	21.6	21.9
PR-Outlet-DS	2024-03-21	8.4	3.2	240	2.9	2.9	2.9
PR-Outlet-DS	2024-05-17	8.2	8.2	243	19.2	19.2	19.2
PR-Outlet-DS	2024-05-17	8.4	11	236	18.3	18.2	18.3
PR-Outlet-DS	2024-05-18	8.6	10.2	239	17.6	18.2	17.6
PR-Outlet-DS	2024-05-18	8.4	11.6	239	17.5	17.2	17.5
PR-Outlet-DS	2024-05-19	8.6	9.8	258	15.1	14.9	15.1
PR-Outlet-DS	2024-05-19	8.4	9.9	239	16.5	15.5	16.5
PR-Outlet-DS	2024-05-20	8.2	9.7	228	13	13.6	13
PR-Outlet-DS	2024-05-20	8.5	10.3	262	12.8	12.7	12.8
PR-Outlet-DS	2024-05-21	8.6	9.4	248	12.8	11.7	12.8
PR-Outlet-DS	2024-05-21	8.5	10.8	235	13.1	11.6	13.1
PR-Outlet-DS	2024-05-23	8.1	10.4	224	13.2	13.5	13.2
PR-Outlet-DS	2024-05-23	8.4	0.2	11900	12.1	11.5	12.1
PR-Outlet-DS	2024-05-22	8.7	10.8	264	7.4	7.7	7.4
PR-Outlet-DS	2024-05-22	8.6	10.5	267	7.3	7.2	7.3
PR-Outlet-DS	2024-05-24	8.5	11.4	274	7.2	7.1	7.2
PR-Outlet-DS	2024-05-24	8.5	12.9	245	7.2	7	7.2
PR-Outlet-DS	2024-05-25	8.6	11.9	243	7.3	7.2	7.3
PR-Outlet-DS	2024-05-25	8.4	12.4	235	7.8	7.5	7.8
PR-Outlet-DS	2024-05-26	8.2	11.2	246	11.2	11.4	11.2
PR-Outlet-DS	2024-05-26	8.5	13	235	12.4	12.2	12.4
PR-Outlet-DS	2024-05-27	8.4	12.3	252	22	22.6	22
PR-Outlet-DS	2024-05-27	8.5	12.8	260	23.9	24	23.9
PR-Outlet-DS	2024-05-28	8.5	12.6	242	27.8	27.6	27.8
PR-Outlet-DS	2024-05-28	8.4	11.9	252	32.6	32.2	32.6
PR-Outlet-DS	2024-05-29	8.6	11.3	277	31.3	33	31.3
PR-Outlet-DS	2024-05-29	8.4	12.6	230	30.9	29.3	30.9
PR-Outlet-DS	2024-05-30	7.9	12.4	253	26.6	26.8	26.6
PR-Outlet-DS	2024-05-30	8.2	12.1	233	26	26.8	26
PR-Outlet-DS	2024-05-31	8.2	12.4	260	23.3	22.5	23.3
PR-Outlet-DS	2024-05-31	8.4	12.9	242	20.2	21.4	20.2
RBDT-BT	2024-01-04	9.9	6.8	441	11.4	11.5	11.4
RBDT-BT	2024-01-24	9.5	7	285	3.1	3	3.1

Appendix 3-B: 2024 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	pH-field	Temperature	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	°Celsius	uS/cm	NTU	NTU	NTU
RBDT-BT	2024-02-28	8.9	8	314	25.9	25.6	25.9
RSEM-R6-EP	2024-01-01	8.1	2.1	931	2.2	2.2	2.2
RSEM-R6-EP	2024-01-02	8.2	0.7	956	2	2.2	2
RSEM-R6-EP	2024-01-03	8	3.8	978	2	2	2
RSEM-R6-EP	2024-01-04	8.2	2.5	964	1.7	1.7	1.7
RSEM-R6-EP	2024-01-05	8.2	2.1	997	1.9	1.8	1.9
RSEM-R6-EP	2024-01-07	8	0	1054	1.9	1.8	1.9
RSEM-R6-EP	2024-01-08	8.1	0.6	986	1.6	1.4	1.6
RSEM-R6-EP	2024-01-12	7.9	0.3	1051	4.4	4.4	4.4
RSEM-R6-EP	2024-01-18	7.8	1.3	1214	1.8	1.7	1.8
RSEM-R6-EP	2024-01-21	7.5	2.5	1266	2.1	2.2	2.1
RSEM-R6-EP	2024-01-23	7.9	1.4	1290	2.8	2.4	2.8
RSEM-R6-EP	2024-01-28	7.7	4.2	1081	5.2	4.9	5.2
RSEM-R6-EP	2024-01-30	7.7	7.8	880	20.4	20.3	20.4
RSEM-R6-EP	2024-02-03	8.1	3.3	547	12.7	12.7	12.7
RSEM-R6-EP	2024-02-06	8.2	1.4	541	4.1	4.1	4.1
RSEM-R6-EP	2024-02-07	8.3	1.6	551	4.5	4.3	4.5
RSEM-R6-EP	2024-02-09	8.3	0.9	601	3.5	3.5	3.5
RSEM-R6-EP	2024-02-11	8.1	3.1	598	3.5	3.5	3.5
RSEM-R6-EP	2024-02-13	8.2	1.3	620	3	3	3
RSEM-R6-EP	2024-02-15	8	1.7	675	2.9	3	2.9
RSEM-R6-EP	2024-02-17	8	4.6	696	3.1	3.1	3.1
RSEM-R6-EP	2024-02-18	7.9	4.2	743	2.6	2.6	2.6
RSEM-R6-EP	2024-02-20	7.8	2.1	829	3	2.9	3
RSEM-R6-EP	2024-02-23	7.6	5.5	868	4.6	4.6	4.6
RSEM-R6-EP	2024-02-25	8.6	0.8	669	6.6	6.6	6.6
RSEM-R6-EP	2024-02-28	8.2	4.1	565	3.8	3.7	3.8
RSEM-R6-EP	2024-03-01	7.8	4.9	677	2.8	2.8	2.8
RSEM-R6-EP	2024-03-04	8.2	1.7	882	3.2	3.1	3.2
RSEM-R6-EP	2024-03-10	7.7	2.8	949	3.6	3.7	3.6
RSEM-R6-EP	2024-03-11	8.6	3.8	489	37.6	36.9	37.6
RSEM-R6-EP	2024-03-12	8.3	2.9	470	27.5	27.7	27.5
RSEM-R6-EP	2024-03-13	8.6	5.5	467	26.3	26.3	26.3
RSEM-R6-EP	2024-03-15	8.3	3.9	474	18.6	18.5	18.6
RSEM-R6-EP	2024-03-16	8.2	5.5	491	15	14.9	15
RSEM-R6-EP	2024-03-17	8.1	4.7	490	11.1	11	11.1
RSEM-R6-EP	2024-03-18	8	4.6	495	8	8	8
RSEM-R6-EP	2024-03-19	8	2.5	524	6.9	7.3	6.9
RSEM-R6-EP	2024-03-24	7.8	3.7	710	20.2	20.4	20.2
RSEM-R6-EP	2024-03-25	8.5	2.9	638	6.9	6.8	6.9
RSEM-R6-EP	2024-03-26	8.5	4.2	532	6.4	6.4	6.4
RSEM-R6-EP	2024-03-27	8.6	5.4	378	7.4	7.1	7.4
RSEM-R6-EP	2024-03-28	8.6	5.2	243	8.2	8.2	8.2
RSEM-R6-EP	2024-03-29	8.7	3	218	7.6	7.8	7.6
RSEM-R6-EP	2024-03-30	8.5	5.2	214	6.8	7	6.8
RSEM-R6-EP	2024-03-31	8.9	2.7	174.5	6.9	6.9	6.9
RSEM-R6-EP	2024-04-01	8.8	4.2	112.5	11.6	11.8	11.6
RSEM-R6-EP	2024-04-02	8.8	4.7	133.9	7.2	7.4	7.2
RSEM-R6-EP	2024-04-03	8.2	4.7	95	8	7.9	8
RSEM-R6-EP	2024-04-07	8.4	6	140	7.7	7.7	7.7
RSEM-R6-EP	2024-04-09	8.5	6.1	285	22.1	22.6	22.1
RSEM-R6-EP	2024-04-10	8.4	7.4	292	22.8	23	22.8
RSEM-R6-EP	2024-04-11	8.4	9.8	266	20.6	20.7	20.6
RSEM-R6-EP	2024-04-12	8.4	8.7	293	34.3	34.6	34.3
RSEM-R6-EP	2024-04-16	8.3	8.5	280	45.6	44.8	45.6
RSEM-R6-EP	2024-04-17	8.5	7	307	42.2	42.5	42.2
RSEM-R6-EP	2024-04-20	8.6	14.6	360	32.7	32.7	32.7
RSEM-R6-EP-US-SD	2024-03-17	5.3	6	1750	188	182	188
RSEM-R6-EP-US-SD	2024-03-18	5.2	4.5	2810	231	227	231
RSEM-R6-EP-US-SD	2024-03-19	3.6	1.7	2490			
RSEM-R6-EP-US-SD	2024-03-24	7.4	1.8	4200	38.4	38.2	38.4
RSEM-R6-EP-US-SD	2024-03-25	8.2	3.8	1273	71.1	67.8	71.1
RSEM-R6-EP-US-SD	2024-03-26	8.4	5.2	959	90.1	86.3	90.1
RSEM-R6-EP-US-SD	2024-03-27	8	3.8	826	998	958	998
RSEM-R6-EP-US-SD	2024-03-28	7.9	6.4	1032	91.9	94.7	91.9
RSEM-R6-EP-US-SD	2024-03-29	8.2	6.2	986	80.7	79.7	80.7
RSEM-R6-EP-US-SD	2024-03-30	8.2	5.8	927	73.3	70.8	73.3
RSEM-R6-EP-US-SD	2024-03-31	8.2	7.6	557	1910	1700	1910
RSEM-R6-EP-US-SD	2024-04-01	8.2	8	828	36	26	36
RSEM-R6-EP-US-SD	2024-04-02	8.2	7.7	833	616	616	616
RSEM-R6-EP-US-SD	2024-04-03	8	4.4	867	627	625	627
RSEM-R6-EP-US-SD	2024-04-04	8.2	5.4	864	28	27	28
RSEM-R6-EP-US-SD	2024-04-07	8.3	11.2	974	63.8	64	63.8
RSEM-R6-EP-US-SD	2024-04-09	7.9	9.6	1074	1106	1105	1106
RSEM-R6-EP-US-SD	2024-04-20	8.1	9.4	1293	4.6	4.6	4.6
RSEM-R6-WEOP	2024-01-01	7.9	3	488	3.4	3.3	3.4
RSEM-R6-WEOP	2024-01-02	8	2.9	519	3.2	3.2	3.2
RSEM-R6-WEOP	2024-01-03	7.9	1.6	479	3.2	3.1	3.2
RSEM-R6-WEOP	2024-01-04	7.8	2.2	529	3.1	3.1	3.1
RSEM-R6-WEOP	2024-01-05	7.7	4.7	490	2.8	2.8	2.8
RSEM-R6-WEOP	2024-01-06	8.1	4	510	2.9	2.9	2.9
RSEM-R6-WEOP	2024-01-07	7.6	2.6	500	3.1	3	3.1
RSEM-R6-WEOP	2024-01-08	7.7	3.7	508	2.9	2.9	2.9
RSEM-R6-WEOP	2024-01-09	7.9	2.6	494	3.4	3.4	3.4
RSEM-R6-WEOP	2024-01-10	7.9	2.4	478	3.4	3.5	3.4
RSEM-R6-WEOP	2024-01-12	7.7	4.8	453	3.7	3.7	3.7
RSEM-R6-WEOP	2024-01-11	7.5	2.8	453	3.8	3.7	3.8
RSEM-R6-WEOP	2024-01-13	8	2	410	4.2	4.2	4.2
RSEM-R6-WEOP	2024-01-14	7.9	3.5	458	4.9	4.8	4.9
RSEM-R6-WEOP	2024-01-15	8.1	1.1	464	5	5	5
RSEM-R6-WEOP	2024-01-16	8.2	1.7	464	5.4	5.5	5.4
RSEM-R6-WEOP	2024-01-17	8	2.5	463	5.8	5.9	5.8
RSEM-R6-WEOP	2024-01-18	7.6	0.7	473	5.8	5.8	5.8
RSEM-R6-WEOP	2024-01-19	7.6	4	521	6.2	6.1	6.2
RSEM-R6-WEOP	2024-01-20	7.7	4.4	454	6.2	6.2	6.2
RSEM-R6-WEOP	2024-01-21	7.6	1.2	466	7.2	7.1	7.2
RSEM-R6-WEOP	2024-01-22	7.7	4	420	7.8	7.4	7.8
RSEM-R6-WEOP	2024-01-23	7.9	4.6	459	7.5	7.3	7.5
RSEM-R6-WEOP	2024-01-24	8	1.8	414	7.1	7	7.1
RSEM-R6-WEOP	2024-01-25	7.8	1.7	400	7	6.8	7
RSEM-R6-WEOP	2024-01-26	8	2.8	381	6.2	6.1	6.2

Appendix 3-B: 2024 *In Situ* Field Measurement Water Quality Data

Station	Collect Date	pH-field	Temperature	Conductivity-field	Turbidity1-field	Turbidity2-field	Turbidity3-field
		pH	°Celsius	uS/cm	NTU	NTU	NTU
RSEM-R6-WEOP	2024-01-27	8	4.1	453	5.6	5.6	5.6
RSEM-R6-WEOP	2024-01-28	7.8	4.9	368	5	5	5
RSEM-R6-WEOP	2024-01-29	7.9	5.5	368	4.7	4.8	4.7
RSEM-R6-WEOP	2024-01-30	7.7	2.9	384	5.6	5.6	5.6
RSEM-R6-WEOP	2024-01-31	8.1	2.7	336	18.7	18.4	18.7
RSEM-R6-WEOP	2024-02-01	7.9	4.2	372	21.2	20.9	21.2
RSEM-R6-WEOP	2024-02-02	7.9	2.3	368	15.4	15.4	15.4
RSEM-R6-WEOP	2024-02-03	7.8	3.6	333	17.8	17.9	17.8
RSEM-R6-WEOP	2024-02-04	8.4	3	317	12.7	12.8	12.7
RSEM-R6-WEOP	2024-02-05	7.8	2.2	381	11.7	11.7	11.7
RSEM-R6-WEOP	2024-02-06	8.1	4	389	6.6	6.6	6.6
RSEM-R6-WEOP	2024-02-07	8	3.2	388	6.6	6.5	6.6
RSEM-R6-WEOP	2024-02-08	7.8	2.3	460	6.1	6	6.1
RSEM-R6-WEOP	2024-02-09	7.9	3.7	395	5.8	5.8	5.8
RSEM-R6-WEOP	2024-02-10	7.8	4.7	500	5.2	5.2	5.2
RSEM-R6-WEOP	2024-02-11	7.9	2.4	375	5.1	5	5.1
RSEM-R6-WEOP	2024-02-12	7.9	5	375	4.6	4.6	4.6
RSEM-R6-WEOP	2024-02-13	8.1	4.1	329	4.9	5	4.9
RSEM-R6-WEOP	2024-02-14	8.1	5.8	347	5.5	5.4	5.5
RSEM-R6-WEOP	2024-02-15	8	2.9	349	5.9	5.8	5.9
RSEM-R6-WEOP	2024-02-16	7.9	4	762	6.3	6.1	6.3
RSEM-R6-WEOP	2024-02-17	7.9	6	363	7	7	7
RSEM-R6-WEOP	2024-02-18	7.9	4.2	366	6.8	7	6.8
RSEM-R6-WEOP	2024-02-19	8	4.6	358	6.6	6.6	6.6
RSEM-R6-WEOP	2024-02-20	7.8	5.9	375	7.3	7.3	7.3
RSEM-R6-WEOP	2024-02-21	7.4	5.9	378	6.5	6.5	6.5
RSEM-R6-WEOP	2024-02-22	8.2	3.1	375	7	7	7
RSEM-R6-WEOP	2024-02-23	7.6	4	364	15.1	15.1	15.1
RSEM-R6-WEOP	2024-02-24	7.5	4.8	438	25.4	25.4	25.4
RSEM-R6-WEOP	2024-02-25	8.4	1.8	366	17.5	17.3	17.5
RSEM-R6-WEOP	2024-02-26	8.1	1.5	430	11.7	11.7	11.7
RSEM-R6-WEOP	2024-02-27	8	1.4	353	5.9	5.9	5.9
RSEM-R6-WEOP	2024-02-28	8.1	1.9	308	7.4	7.3	7.4
RSEM-R6-WEOP	2024-02-29	8.3	1.4	330	7.4	7.1	7.4
RSEM-R6-WEOP	2024-03-01	8.3	0.5	312	8	7.4	8
RSEM-R6-WEOP	2024-03-02	8.5	2.8	240	7.8	7.5	7.8
RSEM-R6-WEOP	2024-03-03	7.6	4.8	354	8	7.9	8
RSEM-R6-WEOP	2024-03-04	8	2.7	230	7.6	7.4	7.6
RSEM-R6-WEOP	2024-03-05	8	1.5	353	7.7	7.7	7.7
RSEM-R6-WEOP	2024-03-06	8.2	1.3	368	7.5	7.5	7.5
RSEM-R6-WEOP	2024-03-07	7.7	2.3	355	8.1	8	8.1
RSEM-R6-WEOP	2024-03-08	8.4	4.7	300	7.8	8	7.8
RSEM-R6-WEOP	2024-03-09	8.4	4.5	255	13.9	14	13.9
RSEM-R6-WEOP	2024-03-10	8.1	3.7	343	14.3	14.4	14.3
RSEM-R6-WEOP	2024-03-11	8.2	4.1	345	24.7	24.4	24.7
RSEM-R6-WEOP	2024-03-12	8.5	2.6	340	17.3	17	17.3
RSEM-R6-WEOP	2024-03-13	8.5	4.6	408	32.6	31.6	32.6
RSEM-R6-WEOP	2024-03-14	8	3.9	245	24.1	24.3	24.1
RSEM-R6-WEOP	2024-03-15	8.2	6.4	446	19.8	19.7	19.8
RSEM-R6-WEOP	2024-03-16	8.2	7.2	423	19.4	19.5	19.4
RSEM-R6-WEOP	2024-03-17	8.2	7	371	17.8	18	17.8
RSEM-R6-WEOP	2024-03-18	7.8	7	354	17.6	17.6	17.6
RSEM-R6-WEOP	2024-03-19	7.5	5.3	363	15.1	15	15.1
RSEM-R6-WEOP	2024-03-20	7.7	4.7	368	15.8	15.3	15.8
RSEM-R6-WEOP	2024-03-21	8.1	4.2	388	14.2	14.2	14.2
RSEM-R6-WEOP	2024-03-22	8.3	6.2	466	7.8	7.9	7.8
RSEM-R6-WEOP	2024-03-23	7.9	6.2	404	6.5	6.5	6.5
RSEM-R6-WEOP	2024-03-25	8.1	4.2	364	5.6	5.5	5.6
RSEM-R6-WEOP	2024-03-26	8.2	6.6	4020	5.4	5.4	5.4
RSEM-R6-WEOP	2024-03-27	8.3	7	386	6.1	5.9	6.1
RSEM-R6-WEOP	2024-03-28	8.1	6.1	331	6.2	6.5	6.2
RSEM-R6-WEOP	2024-03-29	8.2	7.5	302	7.3	6.9	7.3
RSEM-R6-WEOP	2024-03-30	8.4	7.6	307	7.4	7.4	7.4
RSEM-R6-WEOP	2024-03-31	7.8	6.5	273	7.3	7.3	7.3
RSEM-R6-WEOP	2024-04-01	8.2	8.3	254	12.4	11.5	12.4
RSEM-R6-WEOP	2024-04-02	8.3	9	293	7.5	7.6	7.5
RSEM-R6-WEOP	2024-04-03	8.5	5.8	238	7.7	7.6	7.7
RSEM-R6-WEOP	2024-04-04	7.7	8	267	7.8	7.7	7.8
RSEM-R6-WEOP	2024-04-05	8.5	6.1	300	8	7.8	8
RSEM-R6-WEOP	2024-04-06	8.1	8.7	280	8.2	7.9	8.2
RSEM-R6-WEOP	2024-04-07	7.9	8.7	267	11.6	11.4	11.6
RSEM-R6-WEOP	2024-04-09	8	8.1	260	12.9	13.1	12.9
RSEM-R6-WEOP	2024-04-08	8.3	8.4	295	11.8	11.8	11.8
RSEM-R6-WEOP	2024-04-10	8.2	8.3	264	12.3	12.2	12.3
RSEM-R6-WEOP	2024-04-11	8.2	8.5	240	15.3	12	15.3
RSEM-R6-WEOP	2024-04-12	8.1	9.8	235	12.5	12.8	12.5
RSEM-R6-WEOP	2024-04-13	8.3	11.8	254	12.2	12.7	12.2
RSEM-R6-WEOP	2024-04-14	8	13.1	246	8.1	8.2	8.1
RSEM-R6-WEOP	2024-04-15	8.4	8.9	241	7.6	7.5	7.6
RSEM-R6-WEOP	2024-04-16	8.3	9.5	253	6.5	6.4	6.5
RSEM-R6-WEOP	2024-04-17	8.4	9.2	262	6.3	6	6.3
RSEM-R6-WEOP	2024-04-18	8	11.6	290	5.8	5.6	5.8
RSEM-R6-WEOP	2024-04-20	8.5	11.1	325	7.2	5.9	7.2
RSEM-R6-WEOP	2024-04-19	8.4	8.9	315	6	5.9	6
RSEM-R6-WEOP	2024-04-21	8.2	10.6	308	6.7	6.3	6.7
RSEM-R6-WP	2024-03-24	8.5	3.7	63.8	4.9	4.9	4.9
WP-DS	2024-01-06	8.5	2.1	394	1.4	1.2	1.4
WP-DS	2024-02-10	8.2	4	342	1.3	1.3	1.3
WP-DS	2024-03-21	8.4	4.5	357	1.3	1.3	1.3
WP-DS	2024-04-06	8.4	8.1	287	2	2.1	2
WP-DS	2024-05-04	8.5	12	230	5.6	5.7	5.6
WP-DS	2024-06-01	8.1	9.9	183	3.5	3.4	3.5
WP-SP	2024-04-06	8.1	10	380	57	57	57
WP-US	2024-01-06	8.4	4.2	397	1.1	1.1	1.1
WP-US	2024-02-10	7.9	5.3	353	1.5	1.5	1.5
WP-US	2024-03-21	8.2	5.2	358	1.8	1.8	1.8
WP-US	2024-04-06	8.5	7.2	300	1.8	1.8	1.8
WP-US	2024-05-04	8.5	11.1	237	5.2	5.5	5.2
WP-US	2024-06-01	8.2	9.2	192	3.7	3.9	3.7

Note: OR- over range

Appendix 3-C: 2024 Analytical Sample and Field Duplicate Water Quality Data

PEACE RIVER
HYDRO PARTNERS

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Lab Report Id	Extra ID	Sample Class	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3
						pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
WP-DS	1/6/2024 14:40	CHK440	C401523	WP-DS	M	8.13	325	204	<1.0	175	168	157	<1.0	191	<1.0	<1.0	6.44	0.091	0.043	19.4			<0.015	<0.010	0.23
WP-DS	2/10/2024 14:45	CJA997	C409885	WP-DS	M	7.27	275	156	<1.0	140	143	134	<1.0	163	<1.0	<1.0	3.51	0.079	0.022	15.5			<0.015	<0.010	0.27
WP-DS	3/21/2024 15:00	CLE792	C420485	WP-DS	M	7.16	323	188	<0.99	170	149	152	<1.0	186	<1.0	<1.0	4.59	0.075	0.038	18.9			<0.015	<0.010	0.21
WP-DS	4/6/2024 15:45	CLV797	C424301	WP-DS	M	8.12	310	152	<1.0	162	154	144	<1.0	175	<1.0	<1.0	4.93	0.079	0.030	17.4			<0.015	<0.010	0.23
WP-DS	5/4/2024 13:40	CND244	C431928	WP-DS	M	8.11	259	172	16.8	138	136	118	<1.0	144	<1.0	<1.0	2.64	0.067	0.017	14.2			<0.015	<0.010	0.47
WP-DS	6/1/2024 13:50	COP902	C440178	WP-DS	M	7.97	162	92	7.9	96.1	86.5	81.0	<1.0	98.9	<1.0	<1.0	<0.50	<0.050	<0.010	8.3			<0.015	<0.010	0.072
WP-US	1/6/2024 14:00	CHK439	C401523	WP-US	M	8.17	320	192	<1.0	176	166	153	<1.0	187	<1.0	<1.0	6.42	0.082	0.052	19.9			<0.015	<0.010	0.22
WP-US	2/10/2024 14:15	CJA996	C409885	WP-US	M	6.91	277	152	1.6	134	141	155	<1.0	189	<1.0	<1.0	3.31	0.077	0.029	14.7			<0.015	<0.010	0.31
WP-US	3/21/2024 14:40	CLE791	C420485	WP-US	M	8.24	318	188	<1.0	170	146	145	<1.0	177	<1.0	<1.0	4.73	0.080	0.037	19.2			0.015	<0.010	0.22
WP-US	4/6/2024 15:15	CLV796	C424301	WP-US	M	8.15	310	156	<1.0	161	148	143	<1.0	175	<1.0	<1.0	5.23	0.078	0.030	17.5			<0.015	<0.010	0.25
WP-US	5/4/2024 13:15	CND243	C431928	WP-US	M	8.17	254	168	17.1	138	136	125	<1.0	153	<1.0	<1.0	2.45	0.062	0.017	13.9			<0.015	<0.010	0.48
WP-US	6/1/2024 13:30	COP901	C440178	WP-US	M	8.01	159	84	9.3	94.5	84.1	79.7	<1.0	97.3	<1.0	<1.0	<0.50	<0.050	<0.010	6.3			<0.015	<0.010	0.074
RSEM-R6E-SP	1/4/2024 13:30	CHJ030	C401221	RSEM-R6-EP	M	8.13	800	468	<1.0	374	375	302	<1.0	368	<1.0	<1.0	30.0	0.248	0.438	120			<0.015	<0.010	0.54
RSEM-R6E-SP	1/12/2024 11:15	CHP221	C402631	RSEM-R6-EP	M	8.13	964	616	<0.99	467	446	325	<1.0	397	<1.0	<1.0	33.3	0.253	0.476	159			0.139	<0.010	0.46
RSEM-R6E-SP	1/30/2024 12:35	CIK218	C406815	RSEM-R6-EP	M	7.39	725	452	9.14	326	317	249	<1.0	304	<1.0	<1.0	28.4	0.190	0.320	101			0.285	0.018	0.29
RSEM-R6E-SP	2/7/2024 13:00	CIW696	C409111	RSEM-R6-EP	M	6.57	460	256	<1.0	182	163	106	<1.0	129	<1.0	<1.0	45.1	0.224	0.421	71.4			0.178	0.038	0.44
RSEM-R6E-SP	2/15/2024 13:10	CJJ554	C411341	RSEM-R6-EP	M	6.60	546	252	<1.0	255	210	120	<1.0	146	<1.0	<1.0	50.0	0.253	0.500	86.6			0.133	0.039	0.53
RSEM-R6E-SP	2/20/2024 10:25	CJO637	C412275	RSEM-R6-EP	M	6.72	719	388	2.7	284	287	166	<1.0	202	<1.0	<1.0	60.7	0.367	0.604	102			0.156	0.047	0.63
RSEM-R6E-SP	3/4/2024 13:40	CKH349	C415556	RSEM-R6-EP	M	6.85	758	448	<1.0	276	252	121	<1.0	148	<1.0	<1.0	72.1	0.370	0.867	145			0.385	0.091	0.75
RSEM-R6E-SP	3/10/2024 10:45	CKP225	C417144	RSEM-R6-EP	M	6.71	833	512	1.9	289	287	142	<1.0	174	<1.0	<1.0	79.8	0.416	0.845	172			0.380	0.085	0.76
RSEM-R6E-SP	3/12/2024 12:45	CKT064	C417886	RSEM-R6-EP	M	6.59	431	220	5.8	108	101	61.4	<1.0	74.9	<1.0	<1.0	61.1	0.186	0.311	52.1			0.336	0.030	0.41
RSEM-R6E-SP	3/17/2024 13:20	CKY636	C419060	RSEM-R6-EP	M	7.83	449	272	3.9	118	122	65.4	<1.0	79.7	<1.0	<1.0	56.8	0.264	0.392	61.0			0.363	0.024	0.37
RSEM-R6E-SP	3/24/2024 10:30	CLG643	C420882	RSEM-R6-EP	M	7.86	638	400	3.9	258	260	91.8	<1.0	112	<1.0	<1.0	35.4	0.368	0.433	172			0.378	0.080	0.026
RSEM-R6E-SP	3/27/2024 13:45	CLM160	C422169	RSEM-R6-EP	M	7.24	265	212	3.6	106	102	48.6	<1.0	59.3	<1.0	<1.0	13.3	0.218	0.138	61.7			0.140	0.022	0.028
RSEM-R6E-SP	3/29/2024 13:00	CLN877	C422553	RSEM-R6-EP	M	7.56	209	136	2.0	84.8	81.1	39.6	<1.0	48.3	<1.0	<1.0	8.30	0.210	0.110	52.5			0.110	0.012	0.026
RSEM-R6E-SP	4/1/2024 15:00	CLP410	C422923	RSEM-R6-EP	M	7.21	100	72	<1.0	42.0	40.7	26.6	<1.0	32.4	<1.0	<1.0	3.67	0.126	0.043	17.8			0.053	<0.010	0.038
RSEM-R6E-SP	4/10/2024 13:00	CMA567	C425400	RSEM-R6-EP	M	7.49	297	196	4.4	116	106	61.7	<1.0	75.2	<1.0	<1.0	11.7	0.209	0.133	68.8			0.084	<0.010	0.033
RSEM-R6E-SP	4/17/2024 10:00	CMH908	C427220	RSEM-R6-EP	M	7.78	308	180	17.9	126	120	74.8	<1.0	91.2	<1.0	<1.0	11.5	0.254	0.148	67.6			0.047	<0.010	0.038
RSEM-R6W-EOP	1/1/2024 10:45	CHF524	C400290	RSEM-R6-WEOP	M	7.34	419	248	3.7	100	96.3	163	<1.0	199	<1.0	<1.0	28.4	0.127	0.544	35.7			0.069	0.017	0.21
RSEM-R6W-EOP	1/2/2024 13:45	CHG840	C400635	RSEM-R6-WEOP	M	7.36	420	248	3.9	104	97.3	162	<1.0	198	<1.0	<1.0	26.1	0.133	0.527	35.9			0.067	0.019	0.21
RSEM-R6W-EOP	1/3/2024 11:00	CHH927	C400929	RSEM-R6-WEOP	M	7.54	425	252	3.5	98.9	95.9	164	<1.0	200	<1.0	<1.0	27.8	0.133	0.525	36.7			0.075	0.019	0.22
RSEM-R6W-EOP	1/3/2024 11:00	CHH928	C400929	RSEM-R6-WEOP(Duplicate)	D	7.44	425	248	2.9	101	95.3	167	<1.0	203	<1.0	<1.0	28.5	0.130	0.526	36.8			0.080	0.018	0.23
RSEM-R6W-EOP	1/4/2024 12:00	CHJ028	C401221	RSEM-R6-WEOP	M	7.58	419	208	<1.5	100	98.1	158	<1.0	193	<1.0	<1.0	27.8	0.125	0.522	36.1			0.071	0.017	0.23
RSEM-R6W-EOP	1/5/2024 10:45	CHJ034	C401223	RSEM-R6-WEOP	M	7.41	416	212	3.4	101	97.7	160	<1.0	195	<1.0	<1.0	27.8	0.134	0.512	35.4			0.080	0.016	0.23
RSEM-R6W-EOP	1/6/2024 9:00	CHK438	C401523	RSEM-R6-WEOP	M	7.79	400	248	2.70	99.5	97.3	144	<1.0	176	<1.0	<1.0	27.9	0.152	0.537	35.4			0.074	0.016	0.23
RSEM-R6W-EOP	1/7/2024 12:05	CHK447	C401527	RSEM-R6-WEOP	M	7.98	405	244	1.9	106	100	148	<1.0	181	<1.0	<1.0	28.5	0.141	0.552	35.3			0.132	0.017	0.26
RSEM-R6W-EOP	1/8/2024 9:50	CHM078	C401841	RSEM-R6-WEOP	M	8.11	398	244	2.8	103	101	146	<1.0	178	<1.0	<1.0	26.7	0.129	0.541	35.5			0.107	0.016	0.26
RSEM-R6W-EOP	1/9/2024 11:00	CHN193	C402125	RSEM-R6-WEOP	M	7.34	402	276	2.8	100	95.8	160	<1.0	195	<1.0	<1.0	26.8	0.122	0.537	34.8			0.080	0.012	0.27
RSEM-R6W-EOP	1/10/2024 11:30	CHO389	C402427	RSEM-R6-WEOP (Duplicate)	D	8.16	417	216	3.0	103	89.8	140	<1.0	171	<1.0	<1.0	26.6	0.129	0.533	33.0			0.118	0.013	0.26
RSEM-R6W-EOP	1/10/2024 11:30	CHO390	C402427	RSEM-R6-WEOP	M	8.13	411	220	3.1	102	95.4	138	<1.0	169	<1.0	<1.0	26.4	0.122	0.527	32.9			0.077	0.013	0.28
RSEM-R6W-EOP	1/11/2024 11:15	CHP223	C402632	RSEM-R6-WEOP	M	7.28	395	216	3.9	96.4	96.2	158	<1.0	193	<1.0	<1.0	26.0	0.119	0.532	32.0			0.070	0.014	0.27
RSEM-R6W-EOP	1/12/2024 10:30	CHP220	C402631	RSEM-R6-WEOP	M	7.56	399	256	3.1	102	96.5	163	<1.0	199	<1.0	<1.0	26.6	0.129	0.544	31.8			0.075	0.016	0.32
RSEM-R6W-EOP	1/13/2024 11:30	CHQ989	C403022	RSEM-R6-WEOP	M	8.05	410	236	3.42	99.8	96.1	145	<1.0	177	<1.0	<1.0	26.0	0.128	0.503	30.4			0.087	0.017	0.27
RSEM-R6W-EOP	1/14/2024 13:00	CHQ993	C403026	RSEM-R6-WEOP	M	8.06	412	252	3.9	100	96.4	146	<1.0	178	<1.0	<1.0	26.6	0.129	0.519	31.5			0.090	0.019	0.29
RSEM-R6W-EOP	1/15/2024 13:00	CHR959	C403292	RSEM-R6-WEOP	M	7.14	399	252	5.1	97.0	93.7	150	<1.0	183	<1.0	<1.0	28.7	0.051	0.501	31.8			0.080	0.019	0.30
RSEM-R6W-EOP	1/16/2024 11:45	CHT492	C403603	RSEM-R6-WEOP	M	7.20	395	232	4.8	101	101	153	<1.0	187	<1.0	<1.0	26.9	0.121	0.538	31.1			0.092	0.017	0.32
RSEM-R6W-EOP	1/17/2024 12:30	CHU411	C403803	RSEM-R6-WEOP	M	7.87	403	264	4.9	102	103	136	<1.0	166	<1.0	<1.0	19.2	0.167	0.533	34.2			0.098	0.018	0.30
RSEM-R6W-EOP	1/18/2024 12:30	CHV452	C404090	RSEM-R6-WEOP	M	7.82	401	232	6.2	103	108	135	<1.0	165	<1.0	<1.0	18.5	0.124	0.525	32.8			0.105	0.016	0.37
RSEM-R6W-EOP	1/19/2024 10:30	CHV453	C404091	RSEM-R6-WEOP	M	7.98	408	216	5.1	105	108	138	<1.0	168	<1.0	<1.0	18.8	0.130	0.538	32.5			0.102	0.014	0.30
RSEM-R6W-EOP	1/19/2024 10:30	CHV454	C404091	RSEM-R6-WEOP(Duplicate)	D	7.90	413	224	5.3	108	111	143	<1.0	175	<1.0	<1.0	18.8	0.128	0.518	33.4			0.106	0.016	0.28
RSEM-R6W-EOP	1/20/2024 10:40	CHX469	C404397	RSEM-R6-WEOP	M	7.85	393	224	6.1	114	103	142	<1.0	173	<1.0	<1.0	25.9	0.120	0.474	26.9			0.086	0.014	0.27
RSEM-R6W-EOP	1/21/2024 12:45	CHX463	C404392	RSEM-R6-WEOP	M	7.77	375	212	6.9	110	100	135	<1.0	165	<1.0	<1.0	24.3	0.118	0.442	26.3			0.106	0.015	0.25
RSEM-R6W-EOP	1/22/2024 14:00	CHZ272	C404707	RSEM-R6-WEOP	M	7.83	357	196	7.9	109	96.4	128	<1.0	156	<1.0	<1.0	20.6	0.135	0.380	27.0			0.096	0.014	0.24
RSEM-R6W-EOP	1/23/2024 13:50	CIB305	C405093	RSEM-R6-WEOP	M	6.92	345	176	8.9	104	95.8	141	<1.0	172	<1.0	<1.0	18.8	0.100	0.352	26.0			0.108	0.015	0.20

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Lab Report Id	Extra ID	Sample Class	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3
						pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	1/24/2024 18:30	CIC566	C405328	RSEM-R6-WEOP	M	6.78	336	200	6.5	101	94.1	145	<1.0	177	<1.0	<1.0	17.7	0.099	0.335	25.5			0.094	0.016	0.21
RSEM-R6W-EOP	1/25/2024 14:30	CID850	C405618	RSEM-R6-WEOP	M	6.79	326	196	5.5	102	90.8	130	<1.0	159	<1.0	<1.0	17.0	0.098	0.320	23.2			0.086	0.018	0.22
RSEM-R6W-EOP	1/26/2024 11:00	CID849	C405617	RSEM-R6-WEOP	M	7.79	317		6.4	101	92.4	116	<1.0	141	<1.0	<1.0	18.0	0.099	0.358	24.4			0.077	0.017	0.19
RSEM-R6W-EOP	1/27/2024 12:50	CIG715	C406135	RSEM-R6-WEOP	M	7.97	310	160	5.9	94.3	90.8	115	<1.0	140	<1.0	<1.0	16.7	0.091	0.333	23.8			0.085	0.015	0.23
RSEM-R6W-EOP	1/28/2024 12:45	CIG841	C406144	RSEM-R6-WEOP	M	8.05	305	164	3.1	96.8	91.4	112	<1.0	137	<1.0	<1.0	16.3	0.082	0.335	23.8			0.083	0.016	0.26
RSEM-R6W-EOP	1/28/2024 12:45	CIG842	C406144	RSEM-R6-WEOP(Duplicate)	D	8.03	306	168	3.7	91.5	95.0	111	<1.0	136	<1.0	<1.0	16.4	0.083	0.339	23.6			0.087	0.016	0.19
RSEM-R6W-EOP	1/29/2024 11:00	CIG695	C406128	RSEM-R6-WEOP	M	7.91	317	212	4.0	92.0	94.3	111	<1.0	135	<1.0	<1.0	15.6	0.125	0.327	23.0			0.088	0.013	0.21
RSEM-R6W-EOP	1/30/2024 12:20	CIK217	C406815	RSEM-R6-WEOP	M	6.69	306	160	4.5	93.2	90.0	132	<1.0	161	<1.0	<1.0	15.2	0.088	0.302	22.9			0.105	0.016	0.18
RSEM-R6W-EOP	1/31/2024 13:00	CIM176	C407187	RSEM-R6-WEOP	M	6.72	307	200	13.8	95.5	91.1	129	<1.0	158	<1.0	<1.0	17.2	0.112	0.294	26.8			0.077	0.019	0.18
RSEM-R6W-EOP	2/1/2024 13:45	CIO169	C407544	RSEM-R6-WEOP	M	7.11	300	168	11.3	93.4	84.2	115	<1.0	141	<1.0	<1.0	16.8	0.079	0.291	26.7			0.091	0.018	0.19
RSEM-R6W-EOP	2/1/2024 13:55	CIO170	C407544	RSEM-R6-WEOP-DUP	D	7.96	299	156	9.4	91.0	86.4	108	<1.0	131	<1.0	<1.0	17.2	0.097	0.290	27.0			0.075	0.019	0.19
RSEM-R6W-EOP	2/2/2024 11:45	CIO173	C407545	RSEM-R6-WEOP	M	6.95	301	180	6.5	96.8	88.0	113	<1.0	138	<1.0	<1.0	16.7	0.081	0.281	27.7			0.076	0.019	0.19
RSEM-R6W-EOP	2/3/2024 13:05	CIS948	C408344	RSEM-R6-WEOP	M	6.67	304	180	5.7	104	88.6	121	<1.0	148	<1.0	<1.0	16.3	0.084	0.271	28.1			0.061	0.016	0.18
RSEM-R6W-EOP	2/3/2024 13:15	CIS949	C408344	RSEM-R6-WEOP-DUP	D	6.64	302	180	5.7	102	94.6	116	<1.0	142	<1.0	<1.0	16.2	0.083	0.277	28.0			0.073	0.015	0.19
RSEM-R6W-EOP	2/4/2024 13:55	CIQ708	C407929	RSEM-R6-WEOP	M	6.97	307	172	6.4	92.0	90.0	108	<1.0	132	<1.0	<1.0	15.7	0.105	0.260	30.0			0.065	0.016	0.18
RSEM-R6W-EOP	2/5/2024 10:25	CIQ698	C407923	RSEM-R6-WEOP	M	7.21	306	164	7.1	92.8	87.5	114	<1.0	139	<1.0	<1.0	14.8	0.092	0.260	28.1			0.064	0.021	0.16
RSEM-R6W-EOP	2/6/2024 13:40	CIV114	C408786	RSEM-R6-WEOP	M	6.61	317	168	5.5	113	97.3	124	<1.0	152	<1.0	<1.0	15.5	0.087	0.275	31.8			0.046	0.021	0.17
RSEM-R6W-EOP	2/7/2024 12:45	CIW695	C409111	RSEM-R6-WEOP	M	6.63	322	176	7.0	112	102	136	<1.0	166	<1.0	<1.0	15.6	0.086	0.277	32.4			0.049	0.023	0.17
RSEM-R6W-EOP	2/8/2024 14:30	CIY459	C409447	RSEM-R6-WEOP	M	7.93	327	188	5.3	107	107	122	<1.0	148	<1.0	<1.0	15.2	0.083	0.238	33.2			0.050	0.024	0.16
RSEM-R6W-EOP	2/9/2024 10:45	CIY470	C409451	RSEM-R6-WEOP	M	6.99	315	188	3.3	113	105	121	<1.0	147	<1.0	<1.0	13.7	0.092	0.267	31.3			0.107	0.023	0.14
RSEM-R6W-EOP	2/10/2024 8:45	CJA995	C409885	RSEM-R6-WEOP	M	6.81	313	180	2.8	101	106	128	<1.0	157	<1.0	<1.0	14.1	0.093	0.274	26.8			0.056	0.023	0.17
RSEM-R6W-EOP	2/11/2024 13:30	CJA989	C409883	RSEM-R6-WEOP	M	6.58	310	184	4.6	99.4	104	129	<1.0	158	<1.0	<1.0	13.2	0.092	0.275	29.3			0.043	0.024	0.14
RSEM-R6W-EOP	2/11/2024 13:30	CJA990	C409883	RSEM-R6-WEOP(Duplicate)	D	6.65	308	180	4.9	102	105	127	<1.0	154	<1.0	<1.0	13.7	0.096	0.276	29.7			0.056	0.023	0.15
RSEM-R6W-EOP	2/12/2024 11:20	CJD166	C410169	RSEM-R6-WEOP	M	6.88	305	176	3.7	100	93.7	116	<1.0	142	<1.0	<1.0	13.3	0.092	0.275	29.2			0.073	0.024	0.17
RSEM-R6W-EOP	2/13/2024 12:50	CJF529	C410600	RSEM-R6-WEOP	M	7.69	306	168	3.82	127	95.1	112	<1.0	137	<1.0	<1.0	14.1	0.090	0.271	28.6			0.046	0.026	0.14
RSEM-R6W-EOP	2/14/2024 12:30	CJH435	C410938	RSEM-R6-WEOP	M	7.71	301	172	2.7	127	92.7	111	<1.0	135	<1.0	<1.0	14.3	0.091	0.232	27.6			0.048	0.029	0.14
RSEM-R6W-EOP	2/15/2024 14:00	CJJ555	C411341	RSEM-R6-WEOP	M	6.58	297	156	3.9	125	107	127	<1.0	155	<1.0	<1.0	13.5	0.083	0.261	26.8			0.049	0.032	0.14
RSEM-R6W-EOP	2/16/2024 10:30	CJJ650	C411359	RSEM-R6-WEOP	M	6.59	299	176	4.6	123	108	128	<1.0	156	<1.0	<1.0	13.5	0.082	0.260	26.7			0.064	0.032	0.12
RSEM-R6W-EOP	2/17/2024 13:15	CJM213	C411850	RSEM-R6-WEOP	M	6.66	304	172	5.0	109	113	127	<1.0	155	<1.0	<1.0	12.8	0.094	0.243	26.1			0.055	0.031	0.15
RSEM-R6W-EOP	2/18/2024 12:15	CJM243	C411858	RSEM-R6-WEOP	M	6.71	301	184	4.87	111	112	129	<1.0	158	<1.0	<1.0	14.5	0.094	0.263	26.0			0.055	0.030	0.13
RSEM-R6W-EOP	2/19/2024 10:30	CJL996	C411795	RSEM-R6-WEOP	M	6.56	302	152	5.1	113	113	125	<1.0	152	<1.0	<1.0	14.2	0.094	0.305	25.5			0.081	0.029	0.12
RSEM-R6W-EOP	2/19/2024 10:30	CJL997	C411795	RSEM-R6-WEOP(Duplicate)	D	6.57	301	148	5.6	110	114	127	<1.0	155	<1.0	<1.0	14.4	0.096	0.272	25.7			0.055	0.029	0.14
RSEM-R6W-EOP	2/20/2024 10:00	CJO638	C412275	RSEM-R6-WEOP	M	6.49	300	148	5.5	107	107	129	<1.0	158	<1.0	<1.0	13.2	0.104	0.247	27.7			0.056	0.029	0.14
RSEM-R6W-EOP	2/21/2024 17:00	CJQ215	C412552	RSEM-R6-WEOP	M	6.52	305	200	5.62	108	104	126	<1.0	154	<1.0	<1.0	12.9	0.082	0.239	25.4			0.063	0.028	0.15
RSEM-R6W-EOP	2/22/2024 12:10	CJR705	C412795	RSEM-R6-WEOP	M	6.72	311	176	8.3	108	102	125	<1.0	152	<1.0	<1.0	13.3	0.079	0.240	25.9			0.058	0.030	0.13
RSEM-R6W-EOP	2/22/2024 12:20	CJR706	C412795	RSEM-R6-WEOP-DUP	D	6.57	307	176	7.2	113	104	125	<1.0	153	<1.0	<1.0	13.1	0.079	0.202	27.8			0.078	0.029	0.14
RSEM-R6W-EOP	2/23/2024 12:45	CJR710	C412796	RSEM-R6-WEOP	M	6.67	308	152	8.7	116	104	124	<1.0	152	<1.0	<1.0	13.3	0.080	0.230	23.6			0.061	0.029	0.14
RSEM-R6W-EOP	2/24/2024 12:45	CJV373	C413309	RSEM-R6-WEOP	M	8.15	300	160	14.8	117	102	108	<1.0	132	<1.0	<1.0	14.0	0.089	0.254	22.7			0.128	0.029	0.13
RSEM-R6W-EOP	2/25/2024 13:50	CJV301	C413301	RSEM-R6-WEOP	M	8.12	293	160	6.5	112	98.2	106	<1.0	130	<1.0	<1.0	13.7	0.079	0.247	24.5			0.085	0.028	0.11
RSEM-R6W-EOP	2/26/2024 12:10	CJV275	C413294	RSEM-R6-WEOP	M	8.16	293	144	4.3	114	97.8	106	<1.0	129	<1.0	<1.0	13.5	0.080	0.251	24.8			0.069	0.027	0.11
RSEM-R6W-EOP	2/27/2024 14:20	CJY638	C414006	RSEM-R6-WEOP	M	8.09	282	140	4.81	99.5	99.8	106	<1.0	130	<1.0	<1.0	14.1	0.090	0.280	23.0			0.085	0.026	0.10
RSEM-R6W-EOP	3/1/2024 11:30	CKD812	C414823	RSEM-R6-WEOP	M	8.10	297	160	8.5	102	102	109	<1.0	133	<1.0	<1.0	13.1	0.090	0.248	25.8			0.092	0.022	0.13
RSEM-R6W-EOP	3/4/2024 12:45	CKH347	C415556	RSEM-R6-WEOP	M	7.45	298	164	7.9	110	99.0	109	<1.0	133	<1.0	<1.0	13.1	0.086	0.254	26.0			0.079	0.023	0.13
RSEM-R6W-EOP	3/7/2024 9:10	CKM296	C416646	RSEM-R6-WEOP	M	6.55	294	180	10.2	103	100	119	<1.0	145	<1.0	<1.0	12.9	0.081	0.277	24.2			0.073	0.020	0.18
RSEM-R6W-EOP	3/10/2024 9:30	CKP223	C417144	RSEM-R6-WEOP	M	6.77	290	172	11.3	96.3	95.8	112	<1.0	137	<1.0	<1.0	12.6	0.081	0.223	25.8			0.076	0.023	0.13
RSEM-R6W-EOP	3/13/2024 12:20	CKU761	C418300	RSEM-R6-WEOP	M	6.73	340	204	21.0	110	108	103	<1.0	126	<1.0	<1.0	22.5	0.110	0.227	38.0			0.152	0.022	0.19
RSEM-R6W-EOP	3/14/2024 13:30	CKW691	C418697	RSEM-R6-WEOP	M	6.26	221	128	13.5	64.9	64.7	63.0	<1.0	76.9	<1.0	<1.0	16.0	0.090	0.157	26.8			0.117	0.018	0.14
RSEM-R6W-EOP	3/17/2024 13:05	CKY637	C419060	RSEM-R6-WEOP	M	7.48	327	216	13.4	95.8	94.8	79.0	<1.0	96.4	<1.0	<1.0	23.1	0.146	0.370	47.0			0.163	0.026	0.18
RSEM-R6W-EOP	3/18/2024 11:20	CKY613	C419051	RSEM-R6-WEOP	M	6.44	322	196	10.5	90.7	93.4	87.5	<1.0	107	<1.0	<1.0	22.0	0.120	0.361	43.7			3.78	0.024	0.15
RSEM-R6W-EOP	3/20/2024 11:10	CLD624	C420194	RSEM-R6-WEOP	M	6.45	325	188	7.5	98.5	86.6	90.4	<1.0	110	<1.0	<1.0	20.6	0.115	0.360	48.4			0.202	0.030	0.19
RSEM-R6W-EOP	3/23/2024 12:45	CLG612	C420870	RSEM-R6-WEOP	M	7.54	354	204	5.1	113	105	78.3	<1.0	95.6	<1.0	<1.0	20.9	0.152	0.345	57.5			0.201	0.027	0.17
RSEM-R6W-EOP	3/26/2024 11:00	CLK396	C421704	RSEM-R6-WEOP	M	7.31	367	232	5.3	113	112	82.7	<1.0	101	<1.0	<1.0	23.0	0.169	0.308	70.1			0.210	0.027	0.16
RSEM-R6W-EOP	3/29/2024 11:45	CLN878	C422553	RSEM-R6-WEOP	M	7.17	325	196	13.4	98.0	93.1	87.8	<1.0	107	<1.0	<1.0	16.2	0.116	0.314	54.1			0.169	0.026	0.11
RSEM-R6W-EOP	4/1/2024 14:00	CLP411	C422923	RSEM-R6-WEOP	M	7.69	275	176	7.8	84.0	80.2	88.5	<1.0	108	<1.0	<1.0	14.0	0.111	0.279	32.9			0.148	0.025	0.14

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Lab Report Id	Extra ID	Sample Class	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3
						pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	4/4/2024 11:30	CLU068	C423968	RSEM-R6-WEOP	M	7.66	272	152	8.0	82.1	77.8	91.5	<1.0	112	<1.0	<1.0	13.5	0.081	0.264	33.2			0.127	0.023	0.084
RSEM-R6W-EOP	4/4/2024 11:30	CLU069	C423968	RSEM-R6-WEOP(Duplicate)	D	6.79	271	152	8.3	81.0	77.8	88.5	<1.0	108	<1.0	<1.0	13.6	0.081	0.265	33.4			0.128	0.023	0.094
RSEM-R6W-EOP	4/7/2024 14:15	CLV772	C424294	RSEM-R6-WEOP	M	7.08	279	148	5.8	90.5	81.4	83.6	<1.0	102	<1.0	<1.0	14.2	0.093	0.233	37.9			0.094	0.026	0.091
RSEM-R6W-EOP	4/10/2024 12:30	CMA568	C425400	RSEM-R6-WEOP	M	6.80	272	160	9.3	77.9	72.8	90.6	<1.0	110	<1.0	<1.0	13.9	0.092	0.250	31.0			0.089	0.022	0.072
RSEM-R6W-EOP	4/13/2024 9:30	CMD320	C426042	RSEM-R6-WEOP	M	7.08	278	172	8.0	87.0	74.9	97.3	<1.0	119	<1.0	<1.0	13.6	0.074	0.261	25.1			0.048	0.021	0.089
RSEM-R6W-EOP	4/16/2024 13:30	CMF985	C426784	RSEM-R6-WEOP	M	8.06	286	168	5.7	94.6	86.6	104	<1.0	127	<1.0	<1.0	13.2	0.091	0.279	25.6			0.031	0.018	0.092
RSEM-R6W-EOP	4/16/2024 13:30	CMF986	C426784	RSEM-R6-WEOP(Duplicate)	D	8.05	288	176	6.2	97.3	86.7	103	<1.0	126	<1.0	<1.0	13.2	0.089	0.284	23.9			0.019	0.019	0.091
RSEM-R6W-EOP	4/19/2024 11:00	CMJ300	C427522	RSEM-R6-WEOP	M	7.24	295	172	4.9	89.2	85.8	110	<1.0	135	<1.0	<1.0	13.9	0.073	0.281	28.9			<0.015	0.020	0.095
RSEM-R6W-SP	3/24/2024 11:00	CLG644	C420882	RSEM-R6-WP	M	6.90	60.2	44	3.7	16.5	17.2	16.1	<1.0	19.7	<1.0	<1.0	3.71	<0.050	<0.010	4.5			0.027	<0.010	0.041
RSEM-R6W-SP	3/24/2024 11:00	CLG645	C420882	RSEM-R6-WP(Duplicate)	D	6.81	61.3	36	5.1	16.4	16.2	16.6	<1.0	20.2	<1.0	<1.0	4.00	<0.050	<0.010	4.0			0.138	<0.010	0.030
RSEM-R6-EP-US-SD	3/17/2024 14:40	CKY640	C419060	R6-EP-US-SD	M	4.93	1540	1150	703	902	926	1.1	<1.0	1.3	<1.0	<1.0	37.2	2.45	0.545	885			0.277	0.014	0.15
RSEM-R6-EP-US-SD	3/31/2024 14:50	CLN879	C422554	RSEM-R6-EP-US-SD	M	7.06	620	400	1390	330	245	63.2	<1.0	77.2	<1.0	<1.0	14.9	1.16	0.196	249			0.242	<0.010	0.083
WP-SP	4/6/2024 14:20	CLV795	C424301	WP-SP	M	7.71	448	296	161	294	206	68.9	<1.0	84.1	<1.0	<1.0	2.46	0.498	0.028	163			0.051	0.014	0.22
Area_A_N_Ditch	3/25/2024 14:30	CLI203	C421219	Area A N Ditch	M	7.33	364	224	25.9	182	185	138	<1.0	168	<1.0	<1.0	3.42	0.145	<0.010	53.0			<0.015	<0.010	0.10
Area_A_N_Ditch	6/16/2024 13:00	CPO245	C444763	Area A N Ditch	M	8.11	434	240	21.5	226	211	149	<1.0	182	<1.0	<1.0	7.36	0.194	0.048	68.2			<0.015	<0.010	<0.010
AK_Pond	1/4/2024 12:35	CHJ029	C401221	AK Pond	M	8.91	334	168	2.3	80.7	80.6	115	7.6	122	9.2	<1.0	20.7	0.122	0.437	26.0			0.076	0.027	0.22
AK_Pond	1/11/2024 12:00	CHP222	C402632	AK Pond	M	8.99	344	192	13.8	82.7	79.0	140	14.7	135	17.7	<1.0	26.7	0.124	0.540	27.1			0.121	0.028	0.28
AK_Pond	1/19/2024 11:20	CHV456	C404091	AK-Pond	M	8.86	298	176	12.1	87.0	87.7	113	7.6	119	9.1	<1.0	8.73	0.092	0.325	24.0			0.097	0.025	0.15
AK_Pond	1/25/2024 15:00	CID851	C405618	AK-Pond	M	8.62	287	172	2.9	99.8	88.0	125	11.2	126	13.4	<1.0	14.9	0.084	0.279	20.7			0.084	0.025	0.15
AK_Pond	1/30/2024 13:25	CIK220	C406815	AK-Pond	M	7.58	288	160	17.9	95.6	91.2	128	<1.0	156	<1.0	<1.0	14.8	0.089	0.288	20.7			0.101	0.026	0.13
AK_Pond	2/9/2024 11:30	CIY471	C409451	AK-Pond	M	8.61	285	192	169	114	99.3	119	8.2	125	9.9	<1.0	12.7	0.099	0.232	28.7			0.168	0.032	0.12
AK_Pond	2/17/2024 13:30	CJM214	C411850	AK-Pond	M	7.70	279	168	9.5	110	107	120	<1.0	146	<1.0	<1.0	12.7	0.093	0.239	26.6			0.089	0.038	0.12
AK_Pond	2/22/2024 12:50	CJR708	C412795	AK Pond	M	7.27	275	160	2.4	108	94.7	118	<1.0	144	<1.0	<1.0	12.0	0.067	0.218	20.8			0.078	0.038	0.11
AK_Pond	3/1/2024 10:45	CKD813	C414823	AK-Pond	M	8.38	294	164	19.5	103	101	107	<1.0	131	<1.0	<1.0	14.4	0.090	0.273	24.5			0.085	0.030	0.14
AK_Pond	3/6/2024 13:15	CKK595	C416328	AK-pond	M	7.80	277	124	10.7	95.8	96.3	112	<1.0	137	<1.0	<1.0	11.6	0.074	0.258	22.4			0.120	0.031	0.11
AK_Pond	3/6/2024 13:15	CKK596	C416328	AK-pond(Duplicate)	D	7.49	277	128	10.2	102	97.3	111	<1.0	136	<1.0	<1.0	11.3	0.069	0.250	22.1			0.096	0.031	0.10
AK_Pond	3/13/2024 13:15	CKU763	C418300	AK-Pond	M	9.46	224	136	107	112	41.8	60.6	47.3	<1.0	16.0	11.6	16.9	0.072	0.279	30.1			0.179	0.029	0.11
AK_Pond	3/20/2024 11:30	CLD625	C420194	AK-Pond	M	8.77	365	216	9.2	127	110	101	36.8	33.2	44.2	<1.0	21.4	0.163	0.390	62.0			0.293	0.038	0.18
AK_Pond	3/31/2024 13:15	CLN880	C422554	AK Pond	M	8.93	289	172	12.8	93.7	86.3	112	12.0	107	14.4	<1.0	12.7	0.071	0.281	28.0			0.200	0.038	0.087
AK_Pond	4/4/2024 12:20	CLU071	C423968	AK-Pond	M	8.90	302	184	44.1	100	86.0	116	9.4	118	11.2	<1.0	16.8	0.074	0.311	28.1			0.185	0.050	0.10
AK_Pond	4/10/2024 13:45	CMA570	C425400	AK-Pond	M	8.39	290	184	2.5	84.9	81.3	114	9.0	117	10.8	<1.0	13.7	0.067	0.254	24.3			0.138	0.051	0.070
AK_Pond	4/19/2024 11:30	CMJ299	C427522	AK Pond	M	9.00	281	200	15.1	87.9	80.5	107	14.2	95.8	17.0	<1.0	13.3	0.064	0.273	30.7			0.102	0.054	0.096
Area_30_EOP	1/30/2024 14:50	CIK221	C406815	Area 30-EOP	M	6.22	860	632	11.1	562	447	72.0	<1.0	87.9	<1.0	<1.0	5.23	0.258	0.098	365			0.049	0.028	0.22
Area_30_EOP	3/16/2024 14:15	CKY601	C419049	Area 30_EOP	M	7.53	884	688	4.9	513	435	54.6	<1.0	66.6	<1.0	<1.0	9.60	0.300	0.182	395			0.073	0.013	0.16
Area_30_EOP	3/16/2024 14:25	CKY602	C419049	Area 30_EOP-DUP	D	7.65	885	680	3.5	444	442	54.0	<1.0	65.8	<1.0	<1.0	8.78	0.298	0.177	380			0.025	0.013	0.14
Area_30_EOP	5/2/2024 13:45	CNB011	C431502	Area 30-EOP	M	7.93	1770	1500	2.5	1150	1080	100	<1.0	122	<1.0	<1.0	33.6	0.437	0.427	1020			<0.015	<0.010	0.12
L3-DC-DS	3/15/2024 10:45	CKW726	C418710	L3-DC-DS	M				19.0																
L3-DC-DS	6/16/2024 9:00	CPO240	C444763	L3 DC DS	M				11.8																
L3-DC-DS	6/24/2024 12:30	CQB494	C447225	L3-DC-DS	M				64.8																
L3-DC-US	3/15/2024 10:40	CKW725	C418710	L3-DC-US	M				7.7																
L3-DC-US	6/16/2024 8:45	CPO239	C444763	L3 DC US	M				4.54																
L3-DC-US	6/24/2024 12:45	CQB495	C447225	L3-DC-US	M				379																
RSEM-L6-SP	3/18/2024 10:30	CKY612	C419051	RSEM-L6-SP	M	6.87	375	240	4.7	131	138	60.4	<1.0	73.7	<1.0	<1.0	23.6	<0.050	0.294	79.4			0.074	0.034	0.48
RSEM-L6-SP	4/5/2024 11:35	CLU073	C423969	L6-SP	M	7.03	208	128	2.7	74.3	74.3	37.6	<1.0	45.9	<1.0	<1.0	11.9	0.099	0.181	41.8			<0.015	<0.010	0.057
RSEM-L6-SP	4/10/2024 12:00	CMA569	C425400	L6-SP	M	7.75	605	372	<1.0	200	186	79.4	<1.0	96.9	<1.0	<1.0	40.4	0.161	0.499	150			<0.015	0.012	0.074
MWTF-SLP-R6	1/7/2024 12:55	CHK448	C401527	MWTF-SLP-R6	M	7.70	344	236	3.5	89.5	83.2	123	<1.0	150	<1.0	<1.0	25.0	0.133	0.488	28.3			0.076	0.024	0.22
MWTF-SLP-R6	1/13/2024 13:30	CHQ988	C403022	MWTF-SLP-R6	M	7.95	367	212	7.7	85.4	83.0	123	<1.0	150	<1.0	<1.0	24.9	0.126	0.514	27.3			0.118	0.025	0.25
MWTF-SLP-R6	1/22/2024 14:40	CHZ273	C404707	MWTF-SLP-R6	M	7.55	306	164	8.3	98.6	88.5	110	<1.0	134	<1.0	<1.0	16.2	0.095	0.303	24.0			0.085	0.022	0.17
MWTF-SLP-R6	1/28/2024 13:40	CIG844	C406144	MWTF-SLP-R6	M	7.93	297	156	2.7	89.3	90.2	104	<1.0	127	<1.0	<1.0	15.9	0.083	0.283	22.4			0.080	0.023	0.24
MWTF-SLP-R6	1/30/2024 13:00	CIK219	C406815	MWTF-SLP-R6	M	6.71	300	168	7.4	97.1	89.4	128	<1.0	156	<1.0	<1.0	14.8	0.087	0.288	24.2			0.114	0.022	0.16
MWTF-SLP-R6	2/8/2024 15:30	CIY460	C409447	MWTF-SLP-R6	M	7.95	298	168	8.5	104	98.2	112	<1.0	137	<1.0	<1.0	13.9	0.076	0.231	25.6			0.102	0.036	0.14
MWTF-SLP-R6	2/15/2024 12:40	CJJ556	C411341	MWTF-SLP-R6	M	6.57	291	148	6.3	120	105	124	<1.0	152	<1.0	<1.0	13.1	0.083	0.276	26.9			0.075	0.039	0.11
MWTF-SLP-R6	2/22/2024 13:30	CJR709	C412795	MWTF_SLP_R6	M	6.52	289	164	8.9	109	98.5	116	<1.0	142	<1.0	<1.0	12.7	0.073	0.222	23.5			0.081	0.035	0.13
MWTF-SLP-R6	3/4/2024 13:15	CKH348	C415556	MWTF-SLP-R6	M	6.77	291	160	13.7	105	97.4	111	<1.0	136	<1.0	<1.0	12.3	0.075	0.237	26.0			0.090	0.027	0.11

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	Lab Report Id	Extra ID	Sample Class	pH-lab	Conductivity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3
						pH	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWTF-SLP-R6	3/10/2024 10:20	CKP224	C417144	MWTF-SLP-R6	M	6.68	288	172	10.2	95.5	94.0	111	<1.0	136	<1.0	<1.0	12.7	0.082	0.227	26.1			0.087	0.027	0.12
MWTF-SLP-R6	3/13/2024 12:55	CKU762	C418300	MWTF-SLP-R6	M	6.94	307	176	12.5	93.3	90.8	104	<1.0	127	<1.0	<1.0	16.2	0.080	0.257	31.2			0.144	0.025	0.12
MWTF-SLP-R6	3/20/2024 12:00	CLD626	C420194	MWTF-R6-SLP	M	6.25	349	208	9.1	108	95.7	74.4	<1.0	90.7	<1.0	<1.0	22.5	0.153	0.372	66.7			0.260	0.034	0.23
MWTF-SLP-R6	3/31/2024 14:00	CLN881	C422554	MWTF-SLP-R6	M	7.84	265	168	12.8	82.0	73.9	91.2	<1.0	111	<1.0	<1.0	13.0	0.099	0.289	30.4			0.180	0.034	0.096
MWTF-SLP-R6	4/4/2024 14:00	CLU072	C423968	MWTF-SLP-R6	M	7.53	306	180	7.3	91.1	87.2	87.4	<1.0	107	<1.0	<1.0	15.3	0.114	0.292	51.4			0.160	0.035	0.091
MWTF-SLP-R6	4/13/2024 8:50	CMD321	C426042	MWTF-SLP-R6	M	6.99	298	172	5.3	93.0	80.0	111	<1.0	135	<1.0	<1.0	13.8	0.065	0.280	23.7			0.104	0.044	0.086
MWTF-SLP-R6	4/19/2024 23:45	CMJ301	C427522	MWTF-SLP-R6	M	7.34	293	164	4.9	87.9	82.8	109	<1.0	133	<1.0	<1.0	14.0	0.068	0.287	30.2			0.077	0.044	0.095
85-EP	2/1/2024 10:55	CIO172	C407544	85th Ave-EP	M				5.3																
Area_30_SP	6/2/2024 13:00	COP885	C440173	Area 30-SP	M	8.01	2740	2740	12.3	1940	1800	79.1	<1.0	96.5	<1.0	<1.0	41.0	0.606	0.551	1730			0.069	<0.010	<0.050
Area_30_SP	6/2/2024 13:00	COP886	C440173	Area 30-SP(Duplicate)	D	8.01	2730	2720	11.5	2500	1900	79.1	<1.0	96.5	<1.0	<1.0	40.9	0.599	0.568	1710			<0.015	<0.010	<0.050
Area_30_SP	6/16/2024 10:00	CPO241	C444763	Area 30 SP	M	7.35	1300	1060	6.88	816	757	60.2	<1.0	73.4	<1.0	<1.0	15.1	0.448	0.147	658			<0.015	<0.010	0.30
85-IDZ	1/30/2024 16:35	CIK224	C406815	85th Ave-IDZ	M				96.1																
85-IDZ	3/15/2024 13:15	CKW729	C418710	85th Ave-IDZ	M				112																
85-IDZ	5/1/2024 13:20	CMZ165	C431041	85th-IDZ	M				3.2																
85-IDZ	6/15/2024 16:00	CPO330	C444777	85th Ave IDZ	M				10.1																
85-IDZ	6/16/2024 16:45	CPO244	C444763	85TH AVE IDZ	M				82.6																
85-IDZ	6/17/2024 16:10	CPP867	C445065	85th Ave IDZ	M				5.7																
85-IDZ	6/24/2024 15:30	CQB496	C447225	85th Ave IDZ	M				55.9																
85-IDZ	6/27/2024 13:45	CQI715	C448673	85th-IDZ	M				3.5																
L3-W-DC-Sump	3/12/2024 15:30	CKT065	C417886	L3-DC-West-Sump	M				18.3																
L3-W-DC-Sump	3/15/2024 10:30	CKW724	C418710	L3-DC-West-Sump	M				17.4																
L3-W-DC-EOP	3/17/2024 15:35	CKY638	C419060	L3-DC-West-EOP	M				85.9																
L3-W-DC-EOP	5/1/2024 14:40	CMZ167	C431041	L3-WEOP	M				6.0																
L3-W-DC-EOP	6/16/2024 8:30	CPO238	C444763	L3 West Sump EOP	M				16.0																
L3-W-DC-EOP	6/24/2024 12:15	CQB493	C447225	L3-West Sump-EOP	M				89.6																
85-EOP	1/30/2024 16:00	CIK222	C406815	85th Ave-EOP	M				80.6																
85-EOP	3/15/2024 12:45	CKW727	C418710	85th Ave-EOP	M				17.9																
85-EOP	3/17/2024 16:30	CKY639	C419060	85th Ave-EOP	M				7.8																
85-EOP	5/1/2024 13:30	CMZ166	C431041	85th-EOP	M				2.1																
85-EOP	6/15/2024 16:45	CPO328	C444777	85th Ave EOP	M				20.3																
85-EOP	6/16/2024 16:00	CPO242	C444763	85TH AVE EOP	M				85.9																
85-EOP	6/17/2024 16:45	CPP869	C445065	85th Ave EOP	M				11.3																
85-EOP	6/24/2024 16:00	CQB497	C447225	85th Ave EOP	M				141																
85-EOP	6/27/2024 13:15	CQI713	C448673	85th-EOP	M				4.1																
85-US	1/30/2024 16:25	CIK223	C406815	85th Ave-US	M				47.1																
85-US	3/15/2024 13:05	CKW728	C418710	85th Ave-US	M				42.1																
85-US	5/1/2024 13:10	CMZ164	C431041	85th-US	M				<1.0																
85-US	6/15/2024 16:30	CPO329	C444777	85th Ave US	M				1.3																
85-US	6/16/2024 16:15	CPO243	C444763	85TH AVE US	M				27.6																
85-US	6/17/2024 16:30	CPP868	C445065	85th Ave US	M				<1.0																
85-US	6/24/2024 15:45	CQB498	C447225	85th Ave US	M				13.2																
85-US	6/27/2024 13:30	CQI714	C448673	85th-US	M				1.6																
SeptimusBeaverPond_1	5/2/2024 14:20	CNB012	C431502	Area 30-BP1	M	8.01	602	400	5.78	315	295	200	<1.0	243	<1.0	<1.0	10.6	0.166	0.134	116			1.23	<0.010	<0.050
SeptimusBeaverPond_4	5/2/2024 15:15	CNB013	C431502	Area 30-BP4	M	8.09	467	292	29.3	249	229	208	<1.0	254	<1.0	<1.0	10.3	0.144	0.121	23.6			0.034	<0.010	<0.050
SeptimusBeaverPond_6	5/2/2024 15:30	CNB014	C431502	Area 30-BP6	M	7.85	550	376	18.7	287	261	167	<1.0	204	<1.0	<1.0	8.17	0.124	0.131	119			0.084	<0.010	<0.010
SeptimusBeaverPond_8	5/2/2024 15:45	CNB015	C431502	Area 30-BP8	M	8.01	884	608	7.8	496	531	243	<1.0	296	<1.0	<1.0	28.2	0.175	0.320	222			0.066	<0.010	<0.010

Notes: Under Sample Class "M" denotes a monitoring sample and "D" denotes a field duplicate sample. "<" = Result not detected and is below the indicated detection limit. Values are absent from the table if a test result was not reported.

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	N-NO2_NO3	PO4	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
WP-DS	1/6/2024 14:40	CHK440	0.23	<0.0030	<0.50	0.52	0.006	<0.0005	<0.0001	0.0684	<0.0001	<0.001	0.051	<0.00001	52.5	<0.001	<0.0002	<0.0005	0.014	<0.0002	0.0273	10.8	0.0024	<0.0000019	0.0012	<0.001
WP-DS	2/10/2024 14:45	CJA997	0.27	<0.0030	0.64	1.11	0.0088	<0.0005	<0.0001	0.0506	<0.0001	<0.001	<0.05	0.00001	41.9	<0.001	<0.0002	<0.0005	0.028	<0.0002	0.0225	8.55	0.0024	<0.0000019	<0.001	<0.001
WP-DS	3/21/2024 15:00	CLE792	0.21	<0.0030	<0.50	<0.50	0.0052	<0.0005	<0.0001	0.0674	<0.0001	<0.001	<0.05	<0.00001	51.8	<0.001	<0.0002	<0.0005	0.014	<0.0002	0.0269	9.81	0.0022	<0.000019	0.0012	<0.001
WP-DS	4/6/2024 15:45	CLV797	0.23	<0.0030	0.77	<0.50	0.0087	<0.0005	0.0001	0.0618	<0.0001	<0.001	0.054	0.000012	48.8	<0.001	<0.0002	<0.0005	0.028	<0.0002	0.0269	9.65	0.0026	<0.0000019	0.0013	<0.001
WP-DS	5/4/2024 13:40	CND244	0.47	<0.0030	1.45	1.40	0.311	<0.0005	0.00033	0.0572	<0.0001	<0.001	<0.05	0.000044	41.4	<0.001	0.00026	0.00088	0.599	0.00037	0.017	8.28	0.0159	<0.0000019	0.0013	<0.001
WP-DS	6/1/2024 13:50	COP902	0.072	<0.0030	1.52	1.70	0.144	<0.0005	0.00021	0.032	<0.0001	<0.001	<0.05	0.000028	29.7	<0.001	<0.0002	0.00051	0.293	<0.0002	0.0075	5.31	0.0091	<0.0000019	<0.001	<0.001
WP-US	1/6/2024 14:00	CHK439	0.22	0.421	0.61	<0.50	0.0072	<0.0005	<0.0001	0.0624	<0.0001	<0.001	0.059	0.000017	52.3	<0.001	<0.0002	<0.0005	0.012	<0.0002	0.0305	11.1	0.0019	<0.0000019	0.001	<0.001
WP-US	2/10/2024 14:15	CJA996	0.31	<0.0030	0.78	0.98	0.0172	<0.0005	0.00011	0.045	<0.0001	<0.001	<0.05	<0.00001	40.4	<0.001	<0.0002	<0.0005	0.054	<0.0002	0.0222	8.16	0.0029	<0.0000019	<0.001	<0.001
WP-US	3/21/2024 14:40	CLE791	0.22	<0.0030	1.79	<0.50	0.0072	<0.0005	<0.0001	0.0598	<0.0001	<0.001	0.051	<0.00001	51.8	<0.001	<0.0002	<0.0005	0.015	<0.0002	0.0289	9.75	0.0021	<0.00002	0.001	<0.001
WP-US	4/6/2024 15:15	CLV796	0.25	<0.0030	1.16	0.55	0.0107	<0.0005	<0.0001	0.0571	<0.0001	<0.001	<0.05	<0.00001	49.0	<0.001	<0.0002	<0.0005	0.026	<0.0002	0.0245	9.32	0.0026	<0.0000019	0.0011	<0.001
WP-US	5/4/2024 13:15	CND243	0.48	<0.0030	1.60	1.57	0.279	<0.0005	0.00033	0.0537	<0.0001	<0.001	<0.05	0.000039	41.4	<0.001	0.00025	0.00082	0.575	0.00037	0.0178	8.35	0.0157	<0.0000019	0.0012	<0.001
WP-US	6/1/2024 13:30	COP901	0.074	<0.0030	1.63	1.65	0.177	<0.0005	0.00024	0.0313	<0.0001	<0.001	<0.05	0.000025	29.2	<0.001	<0.0002	0.00057	0.359	0.00023	0.0076	5.23	0.0109	<0.0000019	<0.001	<0.001
RSEM-R6E-SP	1/4/2024 13:30	CHJ030	0.54	<0.0030	1.98	1.73	0.0168	<0.0005	0.00033	0.179	<0.0001	<0.001	<0.05	<0.00001	109	<0.001	<0.0002	0.00077	0.022	<0.0002	0.0117	24.4	0.0034	<0.0000019	0.0063	0.0017
RSEM-R6E-SP	1/12/2024 11:15	CHP221	0.46	0.0035	1.64	1.91	0.0152	<0.0005	0.00045	0.217	<0.0001	<0.001	0.073	<0.00001	124	<0.001	<0.0002	0.00098	0.038	<0.0002	0.0162	38.0	0.0133	<0.0000019	0.0072	0.0024
RSEM-R6E-SP	1/30/2024 12:35	CIK218	0.31	0.0031	7.53	5.86	0.292	<0.0005	0.00088	0.139	<0.0001	<0.001	0.056	0.000028	86.9	0.0012	0.00042	0.00997	0.568	0.0003	0.0114	26.5	0.0269	0.0000032	0.0049	0.003
RSEM-R6E-SP	2/7/2024 13:00	CIW696	0.48	<0.0030	5.10	4.99	0.0528	0.00072	0.00033	0.0776	<0.0001	<0.001	<0.05	0.000025	54.5	0.0018	0.00021	0.00199	0.07	<0.0002	0.0111	11.1	0.0248	0.000003	0.008	0.002
RSEM-R6E-SP	2/15/2024 13:10	CJJ554	0.57	<0.0030	4.60	4.32	0.0333	0.00085	0.00037	0.0986	<0.0001	<0.001	<0.05	0.000017	78.3	0.0023	0.00021	0.00219	0.065	<0.0002	0.0118	14.5	0.0202	<0.0000019	0.0099	0.0025
RSEM-R6E-SP	2/20/2024 10:25	CJO637	0.67	<0.0030	6.65	6.78	0.0273	0.0009	0.00042	0.109	<0.0001	<0.001	0.062	0.000018	85.4	0.002	0.00028	0.00244	0.031	<0.0002	0.0152	17.1	0.0356	<0.0000019	0.0104	0.003
RSEM-R6E-SP	3/4/2024 13:40	CKH349	0.84	<0.0030	10.3	6.73	0.0368	0.00143	0.00064	0.112	<0.0001	<0.001	0.086	0.000016	84.1	0.0027	0.00033	0.00228	0.051	<0.0002	0.0183	15.9	0.0384	<0.0000019	0.0176	0.0028
RSEM-R6E-SP	3/10/2024 10:45	CKP225	0.84	<0.0030	7.39	7.48	0.0341	0.00129	0.00059	0.117	<0.0001	<0.001	0.082	0.000028	87.5	0.0021	0.00044	0.00769	0.078	<0.0002	0.0181	17.2	0.0737	0.0000234	0.0172	0.0036
RSEM-R6E-SP	3/12/2024 12:45	CKT064	0.44	<0.0030	6.44	4.50	0.327	0.00075	0.00068	0.0652	<0.0001	<0.001	<0.05	0.000034	33.2	0.0021	0.0005	0.0224	0.77	0.00036	0.0083	6.15	0.0379	0.0000234	0.0077	0.0024
RSEM-R6E-SP	3/17/2024 13:20	CKY636	0.40	<0.0030	5.17	4.37	0.241	0.00062	0.00049	0.0607	<0.0001	<0.001	<0.05	0.000019	35.2	0.0015	0.00049	0.0171	0.226	<0.0002	0.0083	7.37	0.0409	<0.00003	0.0075	0.0027
RSEM-R6E-SP	3/24/2024 10:30	CLG643	0.11	<0.0030	3.60	2.83	0.312	0.0008	0.00077	0.138	<0.0001	<0.001	0.053	0.000035	73.6	<0.001	0.00249	0.00295	0.532	0.00027	0.0184	18.0	0.215	<0.000028	0.0132	0.0107
RSEM-R6E-SP	3/27/2024 13:45	CLM160	0.050	<0.0030	1.71	1.32	0.163	<0.0005	0.00041	0.0704	<0.0001	<0.001	<0.05	0.00002	30.7	<0.001	0.00082	0.00203	0.269	<0.0002	0.0073	7.09	0.0678	<0.000027	0.0053	0.0043
RSEM-R6E-SP	3/29/2024 13:00	CLN877	0.039	<0.0030	1.05	0.82	0.171	<0.0005	0.00041	0.0585	<0.0001	<0.001	<0.05	0.000011	25.7	<0.001	0.00053	0.00194	0.216	<0.0002	0.0065	5.03	0.0434	<0.000028	0.0038	0.0029
RSEM-R6E-SP	4/1/2024 15:00	CLP410	0.038	0.0039	0.55	1.36	0.184	<0.0005	0.00034	0.042	<0.0001	<0.001	<0.05	0.000012	13.5	<0.001	0.00024	0.00212	0.219	<0.0002	0.0029	2.02	0.0194	<0.000024	0.0016	0.0013
RSEM-R6E-SP	4/10/2024 13:00	CMA567	0.033	0.0037	1.11	1.17	0.363	<0.0005	0.00066	0.0912	<0.0001	<0.001	<0.05	0.000024	31.2	<0.001	0.00071	0.00168	0.607	0.00032	0.0087	9.22	0.0736	<0.0000019	0.0045	0.0037
RSEM-R6E-SP	4/17/2024 10:00	CMH908	0.038	0.0032	1.39	1.91	0.49	0.00054	0.0008	0.121	<0.0001	<0.001	<0.05	0.000035	37.7	<0.001	0.0008	0.00214	1.14	0.00058	0.0096	7.70	0.0544	0.0000045	0.0047	0.0039
RSEM-R6W-EOP	1/1/2024 10:45	CHF524	0.23	<0.0030	3.45	1.38	0.35	0.00078	0.00149	0.0757	<0.0001	<0.001	0.064	<0.00001	29.1	<0.001	<0.0002	0.00193	0.067	<0.0002	0.0117	6.70	0.0047	0.0000072	0.0127	0.0011
RSEM-R6W-EOP	1/2/2024 13:45	CHG840	0.23	<0.0030	3.40	1.80	0.35	0.00077	0.00148	0.0729	<0.0001	<0.001	0.061	<0.00001	30.0	<0.001	<0.0002	0.00151	0.065	<0.0002	0.0112	7.08	0.0047	<0.0000019	0.0127	<0.001
RSEM-R6W-EOP	1/3/2024 11:00	CHH927	0.24	<0.0030	2.00	1.96	0.335	0.00074	0.00146	0.0687	<0.0001	<0.001	0.062	<0.00001	28.3	<0.001	<0.0002	0.00144	0.058	<0.0002	0.0112	6.82	0.0045	<0.0000019	0.0124	<0.001
RSEM-R6W-EOP	1/3/2024 11:00	CHH928	0.24	0.0032	2.04	1.87	0.359	0.00075	0.00149	0.0702	<0.0001	<0.001	0.063	<0.00001	29.0	<0.001	<0.0002	0.00153	0.061	<0.0002	0.0115	6.96	0.0046	<0.0000019	0.0127	<0.001
RSEM-R6W-EOP	1/4/2024 12:00	CHJ028	0.25	<0.0030	2.11	1.65	0.351	0.00075	0.00147	0.0691	<0.0001	<0.001	0.062	<0.00001	28.8	<0.001	<0.0002	0.00149	0.061	<0.0002	0.0113	6.81	0.0047	<0.0000019	0.0127	<0.001
RSEM-R6W-EOP	1/5/2024 10:45	CHJ034	0.25	0.0040	2.01	1.97	0.358	0.00073	0.00147	0.0665	<0.0001	<0.001	0.065	<0.00001	29.4	<0.001	<0.0002	0.00148	0.057	<0.0002	0.0111	6.62	0.0048	<0.0000019	0.0125	<0.001
RSEM-R6W-EOP	1/6/2024 9:00	CHK438	0.25	<0.0030	1.91	1.44	0.335	0.00077	0.00161	0.0648	<0.0001	<0.001	0.061	<0.00001	28.7	0.001	<0.0002	0.00176	0.055	<0.0002	0.011	6.75	0.0066	<0.0000019	0.0131	0.0012
RSEM-R6W-EOP	1/7/2024 12:05	CHK447	0.28	<0.0030	1.79	1.18	0.396	0.00067	0.0015	0.0657	<0.0001	<0.001	0.06	<0.00001	30.5	<0.001	<0.0002	0.00153	0.053	<0.0002	0.0106	7.15	0.0063	<0.0000019	0.0127	<0.001
RSEM-R6W-EOP	1/8/2024 9:50	CHM078	0.27	0.0036	1.61	1.62	0.333	0.00077	0.00167	0.0656	<0.0001	<0.001	0.061	<0.00001	29.9	0.0011	<0.0002	0.00178	0.055	<0.0002	0.0111	6.86	0.0081	<0.0000019	0.0132	0.0012
RSEM-R6W-EOP	1/9/2024 11:00	CHN193	0.28	0.0034	2.49	1.83	0.33	0.00077	0.00155	0.0653	<0.0001	<0.001	0.06	<0.00001	29.6	0.0011	<0.0002	0.00168	0.054	<0.0002	0.0106	6.43	0.0074	<0.0000019	0.0133	0.0016
RSEM-R6W-EOP	1/10/2024 11:30	CHO389	0.27	0.0046	1.36	2.25	0.347	0.00081	0.00163	0.0668	<0.0001	<0.001	0.063	<0.00001	30.4	0.001	<0.0002	0.00171	0.056	<0.0002	0.0113	6.66	0.0077	<0.0000019	0.0137	0.0012
RSEM-R6W-EOP	1/10/2024 11:30	CHO390	0.29	0.0041	1.61	1.81	0.343	0.00077	0.00154	0.0656	<0.0001	<0.001	0.061	<0.00001	30.2	0.0011	<0.0002	0.00164	0.057	<0.0002	0.0111	6.35	0.0075	<0.0000019	0.0132	0.0012
RSEM-R6W-EOP	1/11/2024 11:15	CHP223	0.28	<0.0030	1.38	1.45	0.333	0.0007	0.00157	0.0608	<0.0001	<0.001	0.061	<0.00001	28.2	<0.001	<0.0002	0.00161	0.059	<0.0002	0.0106	6.34	0.0071	<0.0000019	0.0125	<0.001
RSEM-R6W-EOP	1/12/2024 10:30	CHP220	0.34	<0.0030	1.32	1.93	0.354	0.00076	0.00159	0.0644	<0.0001	<0.001	0.066	<0.00001	30.2	0.0011	<0.0002	0.00167	0.063	<0.0002	0.0113	6.46	0.0077	<0.0000019	0.0134	0.001
RSEM-R6W-EOP	1/13/2024 11:30	CHQ989	0.29	0.0052	1.36	1.71	0.339	0.00079	0.00149	0.0625	<0.0001	<0.001	0.065	<0.00001	30.1	<0.001	<0.0002	0.00152	0.059	<0.0002	0.0112	5.97	0.0067	0.0000036	0.0111	<0.001
RSEM-R6W-EOP	1/14/2024 13:00	CHQ993	0.30	0.0036	1.98	1.76	0.391	0.00078	0.00145	0.0627	<0.0001	<0.001	0.066	<0.00001	30.2	<0.001	<0.0002	0.00155	0.072	<0.0002	0.0111	6.03	0.0065	<0.0000019	0.0112	<0.001
RSEM-R6W-EOP	1/15/2024 13:00	CHR959	0.31	0.0037	2.01	1.30	0.399	0.0008	0.00154	0.0636	<0.0001	<0.001	0.064	<0.00001	29.1	<0.001	<0.0002	0.00162	0.076	<0.0002	0.0109	5.94	0.0064	<0.0000019	0.011	<0.001
RSEM-R6W-EOP	1/16/2024 11:45	CHT492	0.34	0.0042	1.67	1.93	0.357	0.00079	0.00154	0.0703	<0.0001	<0.001	0.073	<0.00001	29.7	<0.001	<0.0002	0.00168	0.084	<0.0002	0.012	6.42	0.0068	<0.0000019	0.0134	<0.001
RSEM-R6W-EOP	1/17/2024 12:30	CHU411	0.32	<0.0030	2.29	2.77	0.354	0.00078	0.00156	0.0704	<0.0001	<0.001	0.074	<0.00001	30.1	<0.001	<0.0002	0.00169	0.077	<0.0002	0.0122	6.42	0.007	<0.0000019	0.0132	<0.001
RSEM-R6W-EOP	1/18/2024 12:30	CHV452	0.39	<0.0030	2.33	2.68	0.374	0.00077	0.0016	0.0723	<0.0001	<0.001	0.075	<0.00001	30.8	<0.001	<0.0002	0.00173	0.087	<0.0002	0.0124	6.45	0.0069	<0.0000019	0.0131	<0.001
RSEM-R6W-EOP	1/19/2024 10:30	CHV453	0.32	0.0033	2.54	2.33	0.403	0.00078	0.00158	0.0746	<0.0001	<0.001	0.074	<0.00001	31.5	<0.001	<0.0002	0.00175	0.101	<0.0002	0.0122	6.48	0.0079	<0.0000019	0.0132	0.0011
RSEM-R6W-EOP	1/19/2024 10:30	CHV454	0.29	<0.0030	2.39	2.34	0.404	0.00077	0.00156	0.0761	<0.0001	<0.001	0.079	<0.00001	32.4	<0.001	<0.0002	0.0018	0.106	<0.0002	0.0125	6.64	0.008	<0.0000019	0.0134	0.001
RSEM-R6W-EOP	1/20/2024 10:40	CHX469	0.28	0.0034	2.41	2.28	0.529	0.0008	0.00149	0.066	<0.0001	<0.001	0.062	<0.00001	34.7	<0.001	<0.0002	0.00182	0.105	<0.0002	0.0116	6.62	0.0074	<0.0000019	0.0111	<0.001
RSEM-R6W-EOP	1/21/2024 12:45	CHX463	0.26	<0.0030	2.26	2.52	0.508	0.00078	0.00143	0.0651	<0.0001	<0.001	0.059	<0.00001	33.5	<0.001	<0.0002	0.00186	0.106	<0.0002	0.0112	6.47	0.0066	0.0000022	0.0102	<0.001
RSEM-R6W-EOP	1/22/2024 14:00	CHZ272	0.25	<0.0030	2.19	2.21	0.479	0.00072	0.00136	0.0635	<0.0001	<0.001	0.053	<0.00001	33.2	<0.001	<0.0002	0.00165	0.116	<0.0002	0.0097	6.32	0.0064	<0.0000019	0.0095	<0.001
RSEM-R6W-EOP	1/23/2024 13:50	CIB305	0.21	0.0039	2.29	2.84	0.353	0.00067	0.00151	0.0682	<0.0001	<0.001	0.058	<0.00001	30.4	0.001	<0.0002	0.00193	0.101	<0.0002	0.0095	6.81	0.0073	<0.0000019	0.0101	0.0012

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	N-NO2_NO3	PO4	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	1/24/2024 18:30	CIC566	0.23	0.0041	2.57	2.14	0.347	0.00061	0.00141	0.0636	<0.0001	<0.001	0.053	<0.00001	29.7	<0.001	<0.0002	0.00181	0.105	<0.0002	0.0087	6.56	0.0071	<0.0000019	0.0093	0.0011
RSEM-R6W-EOP	1/25/2024 14:30	CID850	0.24	0.0041	2.41	1.91	0.358	0.00061	0.00132	0.0642	<0.0001	<0.001	0.055	<0.00001	29.9	<0.001	<0.0002	0.00179	0.12	<0.0002	0.0087	6.61	0.0063	<0.0000019	0.0092	0.0011
RSEM-R6W-EOP	1/26/2024 11:00	CID849	0.21	0.0033	2.49	1.90	0.333	0.00057	0.00137	0.0609	<0.0001	<0.001	0.052	<0.00001	29.3	<0.001	<0.0002	0.00176	0.091	<0.0002	0.0083	6.86	0.0063	<0.0000019	0.0088	0.0011
RSEM-R6W-EOP	1/27/2024 12:50	CIG715	0.24	<0.0030	2.00	1.75	0.293	<0.0005	0.00114	0.052	<0.0001	<0.001	<0.05	<0.00001	27.0	<0.001	<0.0002	0.00131	0.069	<0.0002	0.007	6.51	0.0053	<0.0000019	0.0073	<0.001
RSEM-R6W-EOP	1/28/2024 12:45	CIG841	0.28	<0.0030	1.97	2.34	0.288	<0.0005	0.00115	0.051	<0.0001	<0.001	<0.05	<0.00001	27.8	<0.001	<0.0002	0.0013	0.067	<0.0002	0.0071	6.67	0.0052	<0.0000019	0.0072	<0.001
RSEM-R6W-EOP	1/28/2024 12:45	CIG842	0.21	0.0033	1.88	1.99	0.278	<0.0005	0.00107	0.0501	<0.0001	<0.001	<0.05	<0.00001	26.5	<0.001	<0.0002	0.00122	0.073	<0.0002	0.007	6.17	0.0049	0.0000022	0.0072	<0.001
RSEM-R6W-EOP	1/29/2024 11:00	CIG695	0.22	0.0034	2.08	1.61	0.296	<0.0005	0.00102	0.0492	<0.0001	<0.001	<0.05	<0.00001	26.6	<0.001	<0.0002	0.00123	0.07	<0.0002	0.0067	6.23	0.0049	<0.0000019	0.0069	<0.001
RSEM-R6W-EOP	1/30/2024 12:20	CIK217	0.20	<0.0030	1.90	2.07	0.298	<0.0005	0.00106	0.0507	<0.0001	<0.001	<0.05	<0.00001	26.9	<0.001	<0.0002	0.00136	0.079	<0.0002	0.0068	6.35	0.0061	0.0000025	0.0069	<0.001
RSEM-R6W-EOP	1/31/2024 13:00	CIM176	0.20	<0.0030	2.12	2.15	0.349	0.00058	0.00118	0.0649	<0.0001	<0.001	<0.05	0.000021	28.6	0.0011	0.00023	0.00175	0.332	0.00029	0.0071	5.83	0.0139	0.0000029	0.007	0.0013
RSEM-R6W-EOP	2/1/2024 13:45	CIO169	0.21	<0.0030	2.09	2.18	0.238	0.00054	0.00102	0.0607	<0.0001	<0.001	<0.05	0.000015	27.7	<0.001	<0.0002	0.00147	0.124	<0.0002	0.0067	5.86	0.0108	0.0000025	0.0067	0.0011
RSEM-R6W-EOP	2/1/2024 13:55	CIO170	0.21	<0.0030	2.01	1.96	0.241	0.00053	0.00103	0.0588	<0.0001	<0.001	<0.05	0.000017	27.1	<0.001	<0.0002	0.0014	0.125	<0.0002	0.0065	5.68	0.0106	0.0000025	0.0065	0.0014
RSEM-R6W-EOP	2/2/2024 11:45	CIO173	0.21	0.0035	1.96	1.91	0.271	0.00055	0.00107	0.0611	<0.0001	<0.001	<0.05	0.000016	28.9	<0.001	<0.0002	0.00149	0.173	<0.0002	0.007	6.00	0.01	<0.0000019	0.0071	0.0012
RSEM-R6W-EOP	2/3/2024 13:05	CIS948	0.20	<0.0030	1.71	2.09	0.239	<0.0005	0.00098	0.0602	<0.0001	<0.001	<0.05	0.000012	31.2	<0.001	<0.0002	0.00163	0.12	0.00021	0.0068	6.40	0.009	<0.0000019	0.0073	0.0011
RSEM-R6W-EOP	2/3/2024 13:15	CIS949	0.20	<0.0030	2.02	2.18	0.26	<0.0005	0.00092	0.0595	<0.0001	<0.001	<0.05	0.000013	30.5	<0.001	<0.0002	0.00137	0.108	<0.0002	0.0068	6.28	0.0086	<0.0000019	0.0071	0.001
RSEM-R6W-EOP	2/4/2024 13:55	CIQ708	0.20	0.0030	2.96	2.22	0.255	<0.0005	0.00083	0.0623	<0.0001	<0.001	<0.05	0.00001	27.8	<0.001	<0.0002	0.00117	0.117	<0.0002	0.0068	5.51	0.0064	<0.0000019	0.0072	<0.001
RSEM-R6W-EOP	2/5/2024 10:25	CIQ698	0.18	<0.0030	2.77	2.05	0.271	<0.0005	0.00085	0.0653	<0.0001	<0.001	<0.05	0.000012	28.1	<0.001	<0.0002	0.00112	0.11	<0.0002	0.0069	5.53	0.0063	<0.0000019	0.0073	0.0012
RSEM-R6W-EOP	2/6/2024 13:40	CIV114	0.19	<0.0030	2.16	2.19	0.259	<0.0005	0.00094	0.0709	<0.0001	<0.001	<0.05	<0.00001	33.3	<0.001	0.00033	0.00135	0.099	<0.0002	0.0075	7.15	0.008	<0.0000019	0.0077	0.0018
RSEM-R6W-EOP	2/7/2024 12:45	CIW695	0.19	<0.0030	2.05	2.06	0.218	<0.0005	0.001	0.0727	<0.0001	<0.001	<0.05	0.000013	31.9	<0.001	0.00037	0.00122	0.106	<0.0002	0.0079	7.72	0.0085	<0.0000019	0.008	0.002
RSEM-R6W-EOP	2/8/2024 14:30	CIY459	0.18	<0.0030	2.13	1.97	0.196	<0.0005	0.00098	0.0677	<0.0001	<0.001	<0.05	0.000014	31.3	<0.001	0.0003	0.00116	0.09	<0.0002	0.0075	6.96	0.0077	<0.0000019	0.0078	0.0018
RSEM-R6W-EOP	2/9/2024 10:45	CIY470	0.16	<0.0030	2.45	2.21	0.204	<0.0005	0.00095	0.0705	<0.0001	<0.001	<0.05	0.000013	32.8	<0.001	0.00024	0.00116	0.083	<0.0002	0.007	7.49	0.0065	<0.0000019	0.0082	0.0016
RSEM-R6W-EOP	2/10/2024 8:45	CJA995	0.19	<0.0030	2.69	2.62	0.18	<0.0005	0.00091	0.0633	<0.0001	<0.001	<0.05	0.000011	29.9	<0.001	<0.0002	0.00105	0.062	<0.0002	0.0067	6.44	0.0048	<0.0000019	0.0073	0.0013
RSEM-R6W-EOP	2/11/2024 13:30	CJA989	0.16	<0.0030	2.88	2.51	0.181	<0.0005	0.0009	0.0638	<0.0001	<0.001	<0.05	0.000012	29.6	<0.001	<0.0002	0.00101	0.06	<0.0002	0.0064	6.17	0.0039	<0.0000019	0.0073	0.0012
RSEM-R6W-EOP	2/11/2024 13:30	CJA990	0.17	<0.0030	2.42	2.65	0.174	<0.0005	0.00094	0.0658	<0.0001	<0.001	<0.05	<0.00001	30.4	<0.001	<0.0002	0.00101	0.06	<0.0002	0.0064	6.34	0.0039	<0.0000019	0.0074	0.0012
RSEM-R6W-EOP	2/12/2024 11:20	CJD166	0.19	<0.0030	2.56	2.73	0.183	<0.0005	0.00093	0.0664	<0.0001	<0.001	<0.05	<0.00001	29.8	<0.001	<0.0002	0.00097	0.057	<0.0002	0.0063	6.25	0.0034	<0.0000019	0.0074	0.0011
RSEM-R6W-EOP	2/13/2024 12:50	CJF529	0.16	<0.0030	3.02	2.99	0.182	<0.0005	0.00094	0.0723	<0.0001	<0.001	<0.05	<0.00001	39.2	<0.001	<0.0002	0.00095	0.077	<0.0002	0.0061	7.04	0.0028	<0.0000019	0.0077	0.0011
RSEM-R6W-EOP	2/14/2024 12:30	CJH435	0.17	<0.0030	2.90	2.18	0.18	<0.0005	0.001	0.0781	<0.0001	<0.001	<0.05	<0.00001	38.8	<0.001	<0.0002	0.00093	0.071	<0.0002	0.0058	7.23	0.0022	<0.0000019	0.0077	0.001
RSEM-R6W-EOP	2/15/2024 14:00	CJJ555	0.17	0.0034	1.76	1.97	0.216	<0.0005	0.00101	0.0784	<0.0001	<0.001	<0.05	<0.00001	38.2	<0.001	<0.0002	0.0009	0.066	<0.0002	0.0056	7.13	0.0019	<0.0000019	0.0077	<0.001
RSEM-R6W-EOP	2/16/2024 10:30	CJJ650	0.16	<0.0030	1.89	2.07	0.248	<0.0005	0.001	0.0772	<0.0001	<0.001	<0.05	<0.00001	37.7	<0.001	<0.0002	0.00096	0.077	<0.0002	0.0056	7.10	0.0018	<0.0000019	0.0075	<0.001
RSEM-R6W-EOP	2/17/2024 13:15	CJM213	0.18	<0.0030	2.33	2.59	0.277	<0.0005	0.00096	0.0731	<0.0001	<0.001	<0.05	<0.00001	32.6	<0.001	<0.0002	0.001	0.069	<0.0002	0.0055	6.75	0.0018	<0.0000019	0.0066	<0.001
RSEM-R6W-EOP	2/18/2024 12:15	CJM243	0.16	<0.0030	2.68	2.95	0.272	<0.0005	0.00099	0.0723	<0.0001	<0.001	<0.05	<0.00001	32.8	<0.001	<0.0002	0.00105	0.06	<0.0002	0.006	7.03	0.0017	<0.0000019	0.0063	<0.001
RSEM-R6W-EOP	2/19/2024 10:30	CJL996	0.15	<0.0030	3.20	2.70	0.247	<0.0005	0.00093	0.0761	<0.0001	<0.001	<0.05	<0.00001	33.5	<0.001	<0.0002	0.00104	0.049	<0.0002	0.0058	7.07	0.0018	<0.0000019	0.0064	<0.001
RSEM-R6W-EOP	2/19/2024 10:30	CJL997	0.17	<0.0030	2.83	2.43	0.271	<0.0005	0.0009	0.075	<0.0001	<0.001	<0.05	<0.00001	32.5	<0.001	<0.0002	0.00101	0.063	<0.0002	0.0057	6.90	0.0018	<0.0000019	0.0064	<0.001
RSEM-R6W-EOP	2/20/2024 10:00	CJO638	0.17	<0.0030	2.20	1.96	0.214	<0.0005	0.00091	0.0709	<0.0001	<0.001	<0.05	<0.00001	31.5	<0.001	<0.0002	0.00103	0.053	<0.0002	0.0056	6.77	0.0019	<0.0000019	0.0059	<0.001
RSEM-R6W-EOP	2/21/2024 17:00	CJQ215	0.18	<0.0030	2.23	2.81	0.207	<0.0005	0.00086	0.0772	<0.0001	<0.001	<0.05	<0.00001	31.8	<0.001	<0.0002	0.0011	0.057	<0.0002	0.0057	6.93	0.0025	<0.0000019	0.0061	<0.001
RSEM-R6W-EOP	2/22/2024 12:10	CJR705	0.16	<0.0030	1.41	2.04	0.229	<0.0005	0.00091	0.0754	<0.0001	<0.001	<0.05	<0.00001	31.9	<0.001	<0.0002	0.00123	0.071	<0.0002	0.0057	6.89	0.0023	<0.0000019	0.0056	<0.001
RSEM-R6W-EOP	2/22/2024 12:20	CJR706	0.17	<0.0030	1.71	2.29	0.213	<0.0005	0.00089	0.0743	<0.0001	<0.001	<0.05	<0.00001	33.8	<0.001	<0.0002	0.00102	0.056	<0.0002	0.0053	6.89	0.0017	<0.0000019	0.0056	<0.001
RSEM-R6W-EOP	2/23/2024 12:45	CJR710	0.17	<0.0030	1.88	2.73	0.293	<0.0005	0.00093	0.0799	<0.0001	<0.001	<0.05	0.000011	34.7	<0.001	<0.0002	0.00121	0.244	<0.0002	0.0054	7.04	0.0073	<0.0000019	0.0057	0.0012
RSEM-R6W-EOP	2/24/2024 12:45	CJV373	0.16	<0.0030	1.99	2.22	0.578	<0.0005	0.00104	0.0817	<0.0001	<0.001	<0.05	0.000023	35.4	0.0011	0.0003	0.00163	0.741	0.00035	0.0054	6.88	0.0182	0.0000197	0.0057	0.0016
RSEM-R6W-EOP	2/25/2024 13:50	CJV301	0.14	<0.0030	2.17	2.34	0.359	<0.0005	0.00089	0.0717	<0.0001	<0.001	<0.05	0.000015	33.8	<0.001	<0.0002	0.00129	0.363	0.00021	0.005	6.60	0.0093	0.0000197	0.0056	0.0012
RSEM-R6W-EOP	2/26/2024 12:10	CJV275	0.14	<0.0030	1.26	1.78	20.2	<0.0005	0.00085	0.0696	<0.0001	<0.001	<0.05	<0.00001	33.7	0.0384	<0.0002	0.0027	0.253	0.00036	0.0049	7.21	0.0169	0.0000202	0.0058	0.0023
RSEM-R6W-EOP	2/27/2024 14:20	CJY638	0.13	<0.0030	2.29	2.32	0.157	<0.0005	0.00083	0.0685	<0.0001	<0.001	<0.05	0.000011	30.1	<0.001	0.00022	0.00132	0.096	<0.0002	0.0059	5.90	0.0089	<0.0000019	0.0057	<0.001
RSEM-R6W-EOP	3/1/2024 11:30	CKD812	0.15	<0.0030	2.18	1.31	0.169	<0.0005	0.00079	0.0674	<0.0001	<0.001	<0.05	<0.00001	30.8	<0.001	<0.0002	0.00118	0.125	<0.0002	0.0059	5.99	0.0033	<0.0000019	0.006	<0.001
RSEM-R6W-EOP	3/4/2024 12:45	CKH347	0.15	<0.0030	2.83	2.21	0.213	<0.0005	0.00086	0.0766	<0.0001	<0.001	<0.05	<0.00001	33.5	<0.001	<0.0002	0.00114	0.108	<0.0002	0.0065	6.48	0.0047	0.0000152	0.0063	<0.001
RSEM-R6W-EOP	3/7/2024 9:10	CKM296	0.20	<0.0030	2.14	2.67	0.225	<0.0005	0.00082	0.0786	<0.0001	<0.001	<0.05	<0.00001	30.7	<0.001	<0.0002	0.0013	0.149	<0.0002	0.006	6.51	0.0049	0.0000204	0.0058	0.0011
RSEM-R6W-EOP	3/10/2024 9:30	CKP223	0.16	<0.0030	2.39	2.23	0.303	<0.0005	0.00081	0.0748	<0.0001	<0.001	<0.05	0.000012	28.7	<0.001	<0.0002	0.00146	0.284	0.00021	0.0053	5.97	0.0083	0.000023	0.005	0.0011
RSEM-R6W-EOP	3/13/2024 12:20	CKU761	0.21	<0.0030	2.62	2.48	0.452	0.0005	0.00105	0.0936	<0.0001	<0.001	<0.05	0.000029	32.6	0.0013	0.00044	0.00211	0.87	0.00047	0.0066	6.97	0.0292	<0.0000019	0.0067	0.0021
RSEM-R6W-EOP	3/14/2024 13:30	CKW691	0.15	0.0041	2.03	2.50	0.622	<0.0005	0.0008	0.0559	<0.0001	<0.001	<0.05	0.000034	19.7	0.0015	0.00036	0.0125	0.633	0.00035	0.004	3.85	0.0261	<0.0000019	0.0038	0.0017
RSEM-R6W-EOP	3/17/2024 13:05	CKY637	0.21	<0.0030	2.00	2.28	0.373	0.00059	0.00104	0.0642	<0.0001	<0.001	<0.05	0.000028	27.3	0.0019	0.00061	0.00155	0.489	0.00031	0.0083	6.69	0.0321	<0.000031	0.0088	0.0028
RSEM-R6W-EOP	3/18/2024 11:20	CKY613	0.18	<0.0030	1.92	2.04	0.28	0.0006	0.00098	0.0596	<0.0001	<0.001	<0.05	0.000023	25.9	0.0015	0.00043	0.00129	0.295	0.00023	0.0077	6.36	0.0243	0.0000158	0.0086	0.0022
RSEM-R6W-EOP	3/20/2024 11:10	CLD624	0.22	<0.0030	2.35	2.09	0.208	0.00065	0.0011	0.0535	<0.0001	<0.001	<0.05	0.000011	28.7	0.0012	0.00028	0.00104	0.168	<0.0002	0.0072	6.51	0.0159	<0.000025	0.0084	0.0015
RSEM-R6W-EOP	3/23/2024 12:45	CLG612	0.20	<0.0030	2.10	2.46	0.192	0.0007	0.001	0.0526	<0.0001	<0.001	<0.05	<0.00001	31.6	<0.001	0.00042	0.00096	0.095	<0.0002	0.0098	8.20	0.0132	<0.00002	0.0091	0.0038
RSEM-R6W-EOP	3/26/2024 11:00	CLK396	0.18	<0.0030	2.42	2.12	0.187	0.00064	0.00102	0.051	<0.0001	<0.001	<0.05	0.000013	29.6	<0.001	0.00067	0.001	0.095	<0.0002	0.01	9.36	0.0144	<0.000021	0.01	0.0063
RSEM-R6W-EOP	3/29/2024 11:45	CLN878	0.14	0.0032	2.38	1.88	0.329	0.00053	0.00099	0.0405	<0.0001	<0.001	<0.05	<0.00001	27.0	<0.001	0.00047	0.001	0.144	<0.0002	0.0088	7.46	0.0119	<0.000026	0.0085	0.0038
RSEM-R6W-EOP	4/1/2024 14:00	CLP411	0.16	<0.0030	2.03	2.37	0.29	<0.0005	0.00099	0.0402	<0.0001	<0.001	<0.05	<0.00001	24.0	<0.001	0.0003	0.00109	0.216	<0.0002	0.0068	5.85	0.0081	<0.000023	0.0073	0.002

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	N-NO2_NO3	PO4	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	4/4/2024 11:30	CLU068	0.11	<0.0030	1.83	1.92	0.297	<0.0005	0.00096	0.0441	<0.0001	<0.001	<0.05	<0.00001	22.8	<0.001	<0.0002	0.00097	0.153	<0.0002	0.0059	6.12	0.0071	<0.0000019	0.0079	0.0015
RSEM-R6W-EOP	4/4/2024 11:30	CLU069	0.12	<0.0030	1.70	1.92	0.294	<0.0005	0.00095	0.044	<0.0001	<0.001	<0.05	<0.00001	22.3	<0.001	<0.0002	0.00102	0.151	<0.0002	0.0059	6.13	0.0071	<0.0000019	0.008	0.0015
RSEM-R6W-EOP	4/7/2024 14:15	CLV772	0.12	<0.0030	1.33	1.23	0.346	<0.0005	0.0009	0.0493	<0.0001	<0.001	<0.05	0.000013	25.5	<0.001	0.00024	0.00242	0.262	<0.0002	0.006	6.54	0.0117	<0.0000019	0.0076	0.0018
RSEM-R6W-EOP	4/10/2024 12:30	CMA568	0.094	0.0033	1.70	1.64	0.254	<0.0005	0.00089	0.0535	<0.0001	<0.001	<0.05	0.000012	20.5	<0.001	0.00021	0.00114	0.234	<0.0002	0.0054	6.50	0.0106	<0.0000019	0.0076	0.0015
RSEM-R6W-EOP	4/13/2024 9:30	CMD320	0.11	0.0032	1.89	2.05	0.333	<0.0005	0.00097	0.0579	<0.0001	<0.001	<0.05	<0.00001	24.8	<0.001	<0.0002	0.00123	0.247	<0.0002	0.0058	6.13	0.0088	<0.0000019	0.0078	0.0013
RSEM-R6W-EOP	4/16/2024 13:30	CMF985	0.11	<0.0030	1.92	2.06	0.308	<0.0005	0.00097	0.0615	<0.0001	<0.001	<0.05	<0.00001	27.4	<0.001	<0.0002	0.00118	0.151	<0.0002	0.0058	6.37	0.0071	<0.0000019	0.0079	0.001
RSEM-R6W-EOP	4/16/2024 13:30	CMF986	0.11	<0.0030	2.13	1.93	0.312	<0.0005	0.00101	0.0628	<0.0001	<0.001	<0.05	<0.00001	28.4	<0.001	<0.0002	0.00118	0.154	<0.0002	0.006	6.38	0.0068	<0.0000019	0.0081	0.0011
RSEM-R6W-EOP	4/19/2024 11:00	CMJ300	0.11	<0.0030	1.76	2.07	0.209	<0.0005	0.00093	0.0548	<0.0001	<0.001	<0.05	<0.00001	25.2	<0.001	<0.0002	0.00133	0.106	<0.0002	0.006	6.38	0.005	<0.0000019	0.0071	<0.001
RSEM-R6W-SP	3/24/2024 11:00	CLG644	0.041	0.0032	<0.50	<0.50	0.0835	<0.0005	0.00031	0.0171	<0.0001	<0.001	<0.05	0.000024	5.31	<0.001	<0.0002	0.00342	0.158	<0.0002	<0.002	0.793	0.0132	0.0000081	<0.001	<0.001
RSEM-R6W-SP	3/24/2024 11:00	CLG645	0.030	<0.0030	<0.50	<0.50	0.0664	<0.0005	0.00027	0.0163	<0.0001	<0.001	<0.05	0.000015	5.33	<0.001	<0.0002	0.00317	0.135	<0.0002	<0.002	0.740	0.0128	<0.000013	<0.001	<0.001
RSEM-R6-EP-US-SD	3/17/2024 14:40	CKY640	0.16	<0.0030	4.67	4.36	26.3	<0.0025	0.0235	0.382	0.00551	<0.005	<0.25	0.0172	217	0.023	0.291	0.281	51.1	0.0077	0.216	87.4	3.46	0.0000662	<0.005	0.85
RSEM-R6-EP-US-SD	3/31/2024 14:50	CLN879	0.083	0.0030	1.84	0.70	19.1	0.00071	0.0234	0.738	0.00315	<0.001	0.066	0.00401	86.4	0.0289	0.0836	0.144	56.9	0.016	0.0721	27.8	1.03	0.000097	0.0041	0.227
WP-SP	4/6/2024 14:20	CLV795	0.24	<0.0030	1.06	1.13	1.74	0.00071	0.0022	0.122	0.00016	<0.001	<0.05	0.000168	97.9	0.0041	0.00245	0.00421	4.23	0.00294	0.0078	12.0	0.0912	<0.000019	0.0149	0.013
Area_A_N_Ditch	3/25/2024 14:30	CLI203	0.10	<0.0030	2.12	1.77	0.385	<0.0005	0.0006	0.116	<0.0001	<0.001	<0.05	0.000026	52.6	<0.001	0.0004	0.00119	0.779	0.00043	0.0035	12.4	0.0277	<0.000024	0.0023	0.0016
Area_A_N_Ditch	6/16/2024 13:00	CPO245	<0.010	<0.0030	2.78	2.97	0.459	<0.0005	0.00147	0.183	<0.0001	<0.001	<0.05	0.000035	69.1	<0.001	0.00059	0.00141	1.4	0.00065	0.0059	13.1	0.145	0.0000025	0.0028	0.0019
AK_Pond	1/4/2024 12:35	CHJ029	0.25	0.0034	2.00	1.79	0.405	0.00062	0.00133	0.0455	<0.0001	<0.001	<0.05	<0.00001	23.5	<0.001	<0.0002	0.00133	0.062	<0.0002	0.0086	5.35	0.0025	<0.0000019	0.0106	0.001
AK_Pond	1/11/2024 12:00	CHP222	0.30	0.0061	1.32	1.96	1.02	0.00066	0.00179	0.0698	<0.0001	<0.001	0.061	0.000013	24.2	0.0018	0.00038	0.00398	0.739	0.00056	0.0108	5.42	0.008	0.0000019	0.0118	0.0049
AK_Pond	1/19/2024 11:20	CHV456	0.17	0.0053	2.15	2.38	1.16	0.00058	0.00137	0.0731	<0.0001	<0.001	0.051	0.000012	25.3	0.0023	0.00032	0.0026	0.635	0.00044	0.0092	5.77	0.0058	0.0000022	0.0083	0.0018
AK_Pond	1/25/2024 15:00	CID851	0.17	0.0059	1.83	2.42	0.409	<0.0005	0.00127	0.0506	<0.0001	<0.001	<0.05	0.000013	28.2	0.001	<0.0002	0.00195	0.173	<0.0002	0.0073	7.11	0.004	<0.0000019	0.0078	0.0016
AK_Pond	1/30/2024 13:25	CIK220	0.16	<0.0030	2.03	2.36	0.649	<0.0005	0.00123	0.0641	<0.0001	<0.001	<0.05	0.000029	27.4	0.0016	0.00038	0.00213	1.05	0.00047	0.0065	6.58	0.0227	0.0000036	0.0066	0.0044
AK_Pond	2/9/2024 11:30	CIY471	0.15	<0.0030	2.66	2.84	3.22	0.00055	0.0031	0.236	0.00025	<0.001	<0.05	0.000047	32.6	0.005	0.00193	0.00783	3.92	0.00312	0.0108	7.81	0.0186	0.0000111	0.0077	0.0081
AK_Pond	2/17/2024 13:30	CJM214	0.16	<0.0030	2.11	2.05	1.58	<0.0005	0.00107	0.0882	<0.0001	<0.001	<0.05	0.000016	32.3	0.0023	0.00027	0.00175	0.572	0.0004	0.0067	7.03	0.0046	<0.0000019	0.0058	0.0027
AK_Pond	2/22/2024 12:50	CJR708	0.15	<0.0030	4.90	1.59	0.488	<0.0005	0.00086	0.054	<0.0001	<0.001	<0.05	<0.00001	32.4	<0.001	<0.0002	0.00113	0.158	<0.0002	0.005	6.65	0.0022	<0.0000019	0.0057	0.0016
AK_Pond	3/1/2024 10:45	CKD813	0.17	0.0041	1.88	2.52	1.01	<0.0005	0.00105	0.0676	<0.0001	<0.001	<0.05	0.000016	31.1	0.0016	0.00033	0.00226	0.718	0.00049	0.0067	6.25	0.008	0.0000071	0.0056	0.0027
AK_Pond	3/6/2024 13:15	CKK595	0.14	0.0037	2.27	2.33	0.62	<0.0005	0.00099	0.0806	<0.0001	<0.001	<0.05	0.000022	27.9	0.0013	0.00035	0.0029	0.74	0.00038	0.0058	6.35	0.0072	0.0000219	0.0052	0.0034
AK_Pond	3/6/2024 13:15	CKK596	0.13	0.0044	2.08	2.47	0.62	<0.0005	0.00102	0.0848	<0.0001	<0.001	<0.05	0.000016	29.7	0.0014	0.00035	0.00301	0.674	0.0004	0.0061	6.65	0.0055	0.0000232	0.0054	0.0025
AK_Pond	3/13/2024 13:15	CKU763	0.14	<0.0030	1.90	2.13	2.61	0.00073	0.00172	0.0736	<0.0001	<0.001	<0.05	0.000019	35.0	0.006	0.00079	0.00583	1.59	0.00094	0.0083	5.98	0.0189	0.0000202	0.0096	0.0037
AK_Pond	3/20/2024 11:30	CLD625	0.22	0.0030	3.46	2.66	1.34	0.00072	0.00123	0.0849	<0.0001	<0.001	<0.05	<0.00001	36.4	0.0021	0.00096	0.00195	0.707	0.00048	0.0116	8.76	0.0346	<0.000024	0.0099	0.007
AK_Pond	3/31/2024 13:15	CLN880	0.13	0.0038	1.92	2.18	1.17	<0.0005	0.00135	0.0589	<0.0001	<0.001	<0.05	0.000018	27.9	0.0016	0.00038	0.0019	0.79	0.00043	0.0064	5.81	0.0121	<0.000028	0.0078	0.0025
AK_Pond	4/4/2024 12:20	CLU071	0.15	0.0048	2.45	2.31	1.4	0.00054	0.00179	0.0888	<0.0001	<0.001	<0.05	0.000049	29.6	0.0025	0.00101	0.0053	2.03	0.00112	0.0073	6.39	0.0344	0.0000029	0.0084	0.0039
AK_Pond	4/10/2024 13:45	CMA570	0.12	0.0048	1.77	2.12	0.365	<0.0005	0.00097	0.0459	<0.0001	<0.001	<0.05	<0.00001	23.3	<0.001	<0.0002	0.00119	0.182	<0.0002	0.005	6.52	0.0046	<0.0000019	0.0086	0.002
AK_Pond	4/19/2024 11:30	CMJ299	0.15	0.0034	2.24	2.03	0.592	0.00055	0.00118	0.0524	<0.0001	<0.001	<0.05	0.00002	25.1	0.0014	0.00031	0.00221	0.509	0.00039	0.0073	6.12	0.015	<0.0000019	0.0067	0.003
Area_30_EOP	1/30/2024 14:50	CIK221	0.25	<0.0030	4.40	3.89	0.592	<0.0025	<0.0005	0.0458	<0.0005	<0.005	<0.25	<0.00005	169	<0.005	<0.001	<0.0025	0.497	<0.001	<0.01	33.8	0.0675	0.0000036	0.0053	<0.005
Area_30_EOP	3/16/2024 14:15	CKY601	0.17	0.0031	4.35	4.57	0.139	<0.0025	<0.0005	0.0351	<0.0005	<0.005	<0.25	0.000072	141	<0.005	<0.001	<0.0025	0.138	<0.001	<0.01	39.2	0.114	<0.000028	0.0057	<0.005
Area_30_EOP	3/16/2024 14:25	CKY602	0.15	<0.0030	4.48	4.76	0.0632	<0.0005	0.00023	0.0301	<0.0001	<0.001	<0.05	0.000019	126	<0.001	0.00034	0.00127	0.099	<0.0002	0.0072	31.8	0.101	<0.000028	0.0048	0.0024
Area_30_EOP	5/2/2024 13:45	CNB011	0.12	<0.0030	6.37	5.47	0.028	<0.0025	<0.0005	0.037	<0.0005	<0.005	<0.25	<0.00005	319	<0.005	<0.001	<0.0025	0.078	<0.001	0.014	86.2	0.0122	<0.0000019	0.0087	<0.005
L3-DC-DS	3/15/2024 10:45	CKW726																								
L3-DC-DS	6/16/2024 9:00	CPO240																								
L3-DC-DS	6/24/2024 12:30	CQB494																								
L3-DC-US	3/15/2024 10:40	CKW725																								
L3-DC-US	6/16/2024 8:45	CPO239																								
L3-DC-US	6/24/2024 12:45	CQB495																								
RSEM-L6-SP	3/18/2024 10:30	CKY612	0.51	0.0033	3.34	3.19	0.385	<0.0005	0.00046	0.0503	<0.0001	<0.001	<0.05	0.000059	38.5	<0.001	0.0005	0.00227	0.407	0.00024	0.006	8.54	0.0519	0.0000213	0.0061	0.0023
RSEM-L6-SP	4/5/2024 11:35	CLU073	0.057	<0.0030	1.88	2.02	0.087	<0.0025	<0.0005	0.0331	<0.0005	<0.005	<0.25	<0.00005	22.1	<0.005	<0.001	<0.0025	0.102	<0.001	<0.01	4.66	0.0116	<0.0000019	<0.005	<0.005
RSEM-L6-SP	4/10/2024 12:00	CMA569	0.085	<0.0030	3.01	3.03	0.0567	<0.0005	0.00039	0.0458	<0.0001	<0.001	0.059	0.000024	52.0	<0.001	0.0003	0.00141	0.063	<0.0002	0.01	16.9	0.0187	<0.0000019	0.0087	0.0023
MWTF-SLP-R6	1/7/2024 12:55	CHK448	0.24	<0.0030	1.48	1.05	0.496	0.00062	0.00142	0.0501	<0.0001	<0.001	0.053	<0.00001	25.8	0.0012	<0.0002	0.00146	0.076	<0.0002	0.0092	6.12	0.0026	<0.0000019	0.0112	<0.001
MWTF-SLP-R6	1/13/2024 13:30	CHQ988	0.28	0.0061	1.24	2.02	0.491	0.00077	0.00157	0.0604	<0.0001	<0.001	0.061	<0.00001	25.2	<0.001	<0.0002	0.002	0.135	0.0002	0.0104	5.48	0.0026	<0.0000019	0.0103	<0.001
MWTF-SLP-R6	1/22/2024 14:40	CHZ273	0.19	<0.0030	2.09	1.79	0.458	0.00057	0.00119	0.0542	<0.0001	<0.001	<0.05	<0.00001	29.3	<0.001	<0.0002	0.00152	0.117	<0.0002	0.0082	6.16	0.0023	<0.0000019	0.0075	<0.001
MWTF-SLP-R6	1/28/2024 13:40	CIG844	0.26	<0.0030	2.00	2.14	0.311	<0.0005	0.001	0.0438	<0.0001	<0.001	<0.05	<0.00001	25.5	<0.001	<0.0002	0.00127	0.065	<0.0002	0.0066	6.24	0.0022	<0.0000019	0.0066	<0.001
MWTF-SLP-R6	1/30/2024 13:00	CIK219	0.18	0.0032	2.04	2.26	0.297	<0.0005	0.00106	0.0549	<0.0001	<0.001	<0.05	0.000011	27.4	<0.001	<0.0002	0.00145	0.113	<0.0002	0.0069	6.99	0.0058	0.0000027	0.0066	<0.001
MWTF-SLP-R6	2/8/2024 15:30	CIY460	0.17	<0.0030	3.65	3.48	0.24	<0.0005	0.00105	0.0751	<0.0001	<0.001	<0.05	0.000013	31.0	0.0012	<0.0002	0.00115	0.102	<0.0002	0.0066	6.36	0.0032	<0.0000019	0.0078	0.0011
MWTF-SLP-R6	2/15/2024 12:40	CJJ556	0.15	<0.0030	1.90	2.50	0.311	<0.0005	0.00096	0.0797	<0.0001	<0.001	<0.05	<0.00001	36.6	<0.001	<0.0002	0.00114	0.107	<0.0002	0.0053	7.03	0.0018	<0.0000019	0.0072	<0.001
MWTF-SLP-R6	2/22/2024 13:30	CJR709	0.16	<0.0030	1.21	1.65	0.308	<0.0005	0.00086	0.0713	<0.0001	<0.001	<0.05	<0.00001	32.7	<0.001	<0.0002	0.0011	0.12	<0.0002	0.0052	6.76	0.0016	<0.0000019	0.0058	0.001
MWTF-SLP-R6	3/4/2024 13:15	CKH348	0.14	<0.0030	2.63	2.22	0.316	<0.0005	0.00085	0.0763	<0.0001	<0.001	<0.05	<0.00001	31.6	<0.001	<0.0002	0.00138	0.193	<0.0002	0.0062	6.39	0.0029	0.0000198	0.0057	<0.001

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	N-NO2_NO3	PO4	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWTF-SLP-R6	3/10/2024 10:20	CKP224	0.15	<0.0030	1.99	2.51	0.315	<0.0005	0.00086	0.085	<0.0001	<0.001	<0.05	<0.00001	28.3	<0.001	<0.0002	0.00143	0.25	<0.0002	0.0056	6.03	0.0038	0.0000176	0.0051	<0.001
MWTF-SLP-R6	3/13/2024 12:55	CKU762	0.14	0.0031	1.93	2.07	0.261	<0.0005	0.00104	0.0812	<0.0001	<0.001	<0.05	<0.00001	26.6	<0.001	0.00024	0.00163	0.22	0.00025	0.0059	6.51	0.0119	<0.0000019	0.0075	0.0012
MWTF-SLP-R6	3/20/2024 12:00	CLD626	0.26	<0.0030	2.94	2.42	0.302	0.00077	0.0011	0.0454	<0.0001	<0.001	<0.05	<0.00001	29.1	0.0013	0.00058	0.00136	0.273	0.00022	0.0105	8.44	0.0139	<0.000023	0.0095	0.0046
MWTF-SLP-R6	3/31/2024 14:00	CLN881	0.13	<0.0030	2.12	1.81	0.399	<0.0005	0.00106	0.0348	<0.0001	<0.001	<0.05	<0.00001	23.3	<0.001	<0.0002	0.0011	0.164	<0.0002	0.0059	5.77	0.0049	<0.000017	0.0079	0.0013
MWTF-SLP-R6	4/4/2024 14:00	CLU072	0.13	<0.0030	1.84	1.82	0.31	<0.0005	0.00104	0.0401	<0.0001	<0.001	<0.05	<0.00001	24.0	<0.001	0.00021	0.0012	0.121	<0.0002	0.0074	7.56	0.0065	<0.0000019	0.0086	0.0018
MWTF-SLP-R6	4/13/2024 8:50	CMD321	0.13	0.0032	2.05	2.17	0.335	<0.0005	0.00104	0.0494	<0.0001	<0.001	<0.05	<0.00001	26.3	<0.001	<0.0002	0.00114	0.097	<0.0002	0.0063	6.64	0.0032	<0.0000019	0.0086	0.0011
MWTF-SLP-R6	4/19/2024 23:45	CMJ301	0.14	<0.0030	1.90	2.19	0.408	<0.0005	0.00094	0.0439	<0.0001	<0.001	<0.05	<0.00001	24.8	<0.001	<0.0002	0.00113	0.13	<0.0002	0.0063	6.32	0.0052	<0.0000019	0.007	<0.001
85-EP	2/1/2024 10:55	CIO172																								
Area_30_SP	6/2/2024 13:00	COP885	<0.050	<0.0030	8.14	7.73	0.388	<0.0025	0.00072	0.0685	<0.0005	<0.005	<0.25	<0.00005	527	<0.005	<0.001	<0.0025	0.459	<0.001	0.027	151	0.105	<0.0000019	0.0073	0.006
Area_30_SP	6/2/2024 13:00	COP886	<0.050	<0.0030	7.41	7.29	0.276	<0.0025	0.00097	0.0831	<0.0005	<0.005	<0.25	<0.00005	649	<0.005	<0.001	<0.0025	0.613	0.0029	0.029	214	0.131	<0.0000019	0.0099	0.0078
Area_30_SP	6/16/2024 10:00	CPO241	0.30	<0.0030	3.19	3.24	0.086	<0.0025	<0.0005	0.0531	<0.0005	<0.005	<0.25	<0.00005	249	<0.005	<0.001	<0.0025	0.181	<0.001	<0.01	47.1	0.0316	<0.0000019	0.009	<0.005
85-IDZ	1/30/2024 16:35	CIK224																								
85-IDZ	3/15/2024 13:15	CKW729																								
85-IDZ	5/1/2024 13:20	CMZ165																								
85-IDZ	6/15/2024 16:00	CPO330																								
85-IDZ	6/16/2024 16:45	CPO244																								
85-IDZ	6/17/2024 16:10	CPP867																								
85-IDZ	6/24/2024 15:30	CQB496																								
85-IDZ	6/27/2024 13:45	CQI715																								
L3-W-DC-Sump	3/12/2024 15:30	CKT065																								
L3-W-DC-Sump	3/15/2024 10:30	CKW724																								
L3-W-DC-EOP	3/17/2024 15:35	CKY638																								
L3-W-DC-EOP	5/1/2024 14:40	CMZ167																								
L3-W-DC-EOP	6/16/2024 8:30	CPO238																								
L3-W-DC-EOP	6/24/2024 12:15	CQB493																								
85-EOP	1/30/2024 16:00	CIK222																								
85-EOP	3/15/2024 12:45	CKW727																								
85-EOP	3/17/2024 16:30	CKY639																								
85-EOP	5/1/2024 13:30	CMZ166																								
85-EOP	6/15/2024 16:45	CPO328																								
85-EOP	6/16/2024 16:00	CPO242																								
85-EOP	6/17/2024 16:45	CPP869																								
85-EOP	6/24/2024 16:00	CQB497																								
85-EOP	6/27/2024 13:15	CQI713																								
85-US	1/30/2024 16:25	CIK223																								
85-US	3/15/2024 13:05	CKW728																								
85-US	5/1/2024 13:10	CMZ164																								
85-US	6/15/2024 16:30	CPO329																								
85-US	6/16/2024 16:15	CPO243																								
85-US	6/17/2024 16:30	CPP868																								
85-US	6/24/2024 15:45	CQB498																								
85-US	6/27/2024 13:30	CQI714																								
SeptimusBeaverPond_1	5/2/2024 14:20	CNB012	<0.050	0.0167	18.5	17.5	0.0303	<0.0005	0.00081	0.114	<0.0001	<0.001	<0.05	<0.00001	76.5	<0.001	0.00025	<0.0005	0.389	<0.0002	0.0041	30.2	0.255	<0.0000019	<0.001	<0.001
SeptimusBeaverPond_4	5/2/2024 15:15	CNB013	<0.050	0.0043	21.7	18.4	0.13	<0.0005	0.00092	0.0863	<0.0001	<0.001	<0.05	<0.00001	56.9	<0.001	0.00039	<0.0005	0.352	<0.0002	0.004	26.0	0.187	<0.0000019	<0.001	0.0012
SeptimusBeaverPond_6	5/2/2024 15:30	CNB014	<0.010	0.0047	21.0	17.2	0.119	<0.0005	0.00133	0.149	<0.0001	<0.001	<0.05	<0.00001	69.4	<0.001	0.00092	0.00056	2.18	<0.0002	0.0042	27.6	0.307	<0.0000019	0.0018	0.0028
SeptimusBeaverPond_8	5/2/2024 15:45	CNB015	<0.010	0.0055	23.0	18.3	0.02	<0.0005	0.0013	0.188	<0.0001	<0.001	<0.05	<0.00001	113	<0.001	0.00058	<0.0005	1.91	<0.0002	0.0064	51.6	0.529	<0.0000019	0.0021	0.0028

Notes: Under Sample Class "M" denotes a monitoring sample and "D" denotes a field duplicate sample. "<" = Result not detected and is below the indicated detection limit. Values are absent from the table if a test result was not reported.

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	T-P	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
WP-DS	1/6/2024 14:40	CHK440	<0.01	1.12	0.00047	1.93	<0.00002	5.60	0.29	6.0	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.0655	<0.0001	<0.001	0.052	<0.00001	50.4
WP-DS	2/10/2024 14:45	CJA997	<0.01	0.930	0.0004	1.77	<0.00002	3.74	0.243	5.1	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.0505	<0.0001	<0.001	<0.05	<0.00001	43.1
WP-DS	3/21/2024 15:00	CLE792	0.011	1.05	0.00053	1.67	<0.00002	4.91	0.288	6.5	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.0621	<0.0001	<0.001	0.051	<0.00001	45.2
WP-DS	4/6/2024 15:45	CLV797	<0.01	1.08	0.00055	1.64	<0.00002	4.91	0.259	5.5	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.0618	<0.0001	<0.001	0.051	0.00001	46.7
WP-DS	5/4/2024 13:40	CND244	0.024	0.810	0.00052	1.98	<0.00002	2.64	0.201	4.9	0.000011	<0.005	<0.005	0.00041	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.0529	<0.0001	<0.001	<0.05	0.000016	41.2
WP-DS	6/1/2024 13:50	COP902	0.01	0.410	0.00039	1.41	<0.00002	1.37	0.127	<3.0	<0.00001	<0.005	<0.005	0.00025	<0.005	<0.005	<0.0001	0.0097	<0.0005	<0.0001	0.0273	<0.0001	<0.001	<0.05	0.000011	26.9
WP-US	1/6/2024 14:00	CHK439	<0.01	1.27	0.00042	1.94	<0.00002	6.10	0.295	5.9	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.058	<0.0001	<0.001	0.055	<0.00001	49.2
WP-US	2/10/2024 14:15	CJA996	<0.01	0.949	0.00039	1.72	<0.00002	3.73	0.231	4.7	<0.00001	<0.005	<0.005	0.00041	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.0461	<0.0001	<0.001	<0.05	0.000011	42.6
WP-US	3/21/2024 14:40	CLE791	<0.01	1.13	0.00046	1.69	<0.00002	5.12	0.283	7.3	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.055	<0.0001	<0.001	0.054	<0.00001	44.2
WP-US	4/6/2024 15:15	CLV796	<0.01	1.16	0.00048	1.63	<0.00002	4.49	0.262	5.0	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.0548	<0.0001	<0.001	0.056	0.000013	44.6
WP-US	5/4/2024 13:15	CND243	0.022	0.803	0.00049	1.99	0.000046	2.67	0.197	4.8	<0.00001	<0.005	<0.005	0.00041	<0.005	<0.005	<0.0001	0.0031	<0.0005	<0.0001	0.0509	<0.0001	<0.001	<0.05	0.000019	41.2
WP-US	6/1/2024 13:30	COP901	0.016	0.418	0.00035	1.44	<0.00002	1.36	0.127	<3.0	<0.00001	<0.005	<0.005	0.00025	<0.005	<0.005	<0.0001	0.0102	<0.0005	0.0001	0.0255	<0.0001	<0.001	<0.05	0.000011	26.0
RSEM-R6E-SP	1/4/2024 13:30	CHJ030	<0.01	6.33	0.00065	4.29	<0.00002	22.8	0.351	41.0	0.000012	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	0.0055	<0.0005	0.00032	0.167	<0.0001	<0.001	<0.05	<0.00001	109
RSEM-R6E-SP	1/12/2024 11:15	CHP221	<0.01	7.90	0.00065	4.49	<0.00002	41.6	0.494	57.4	0.000015	<0.005	<0.005	0.00238	<0.005	0.0066	<0.0001	0.0033	<0.0005	0.0004	0.203	<0.0001	<0.001	0.071	<0.00001	118
RSEM-R6E-SP	1/30/2024 12:35	CIK218	0.066	8.89	0.00041	4.48	<0.00002	30.7	0.375	44.3	0.000024	<0.005	0.0128	0.00171	<0.005	0.0348	0.00028	0.0051	<0.0005	0.00059	0.125	<0.0001	<0.001	0.059	0.000011	84.7
RSEM-R6E-SP	2/7/2024 13:00	CIW696	0.023	6.93	0.00041	2.09	<0.00002	23.4	0.284	26.2	0.000013	<0.005	<0.005	0.00084	<0.005	0.0068	<0.0001	0.0134	0.00062	0.00023	0.0699	<0.0001	<0.001	<0.05	0.000014	49.9
RSEM-R6E-SP	2/15/2024 13:10	CJJ554	<0.01	8.54	0.00053	2.41	<0.00002	28.7	0.355	30.6	0.00002	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	0.0068	0.00075	0.00029	0.0878	<0.0001	<0.001	<0.05	0.000012	63.0
RSEM-R6E-SP	2/20/2024 10:25	CJO637	0.014	9.38	0.00053	2.74	<0.00002	32.4	0.387	40.2	0.00002	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	0.0075	0.00094	0.00037	0.119	<0.0001	<0.001	0.055	0.000018	87.1
RSEM-R6E-SP	3/4/2024 13:40	CKH349	0.024	11.1	0.00107	3.23	<0.00002	39.2	0.449	50.6	0.00002	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	0.012	0.00126	0.00051	0.103	<0.0001	<0.001	0.081	0.000013	76.1
RSEM-R6E-SP	3/10/2024 10:45	CKP225	0.022	10.7	0.00095	3.14	<0.00002	42.1	0.443	47.6	0.00002	<0.005	<0.005	0.00115	<0.005	0.0498	<0.0001	0.0077	0.00129	0.00053	0.119	<0.0001	<0.001	0.087	0.000025	85.0
RSEM-R6E-SP	3/12/2024 12:45	CKT064	0.053	6.03	0.00049	2.1	<0.00002	33.5	0.195	15.3	0.000014	<0.005	0.007	0.00047	<0.005	0.0166	0.00023	0.0125	0.00068	0.0003	0.0545	<0.0001	<0.001	<0.05	0.000018	31.0
RSEM-R6E-SP	3/17/2024 13:20	CKY636	0.023	6.04	0.00048	1.9	<0.00002	30.9	0.207	18.7	0.000014	<0.005	0.0056	0.00054	<0.005	0.0218	0.00015	0.009	0.00061	0.00037	0.0578	<0.0001	<0.001	<0.05	0.000015	36.7
RSEM-R6E-SP	3/24/2024 10:30	CLG643	0.038	5.59	0.00081	3.27	<0.00002	22.9	0.418	53.1	0.000018	<0.005	0.008	0.00139	<0.005	0.0111	0.00031	0.0084	0.00078	0.0005	0.127	<0.0001	<0.001	0.053	0.000017	74.4
RSEM-R6E-SP	3/27/2024 13:45	CLM160	0.029	2.34	0.00037	1.48	<0.00002	8.56	0.17	19.3	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0069	0.0001	0.0153	<0.0005	0.00027	0.0577	<0.0001	<0.001	<0.05	<0.00001	30.5
RSEM-R6E-SP	3/29/2024 13:00	CLN877	0.02	2.03	0.00029	1.56	<0.00002	6.09	0.128	15.1	<0.00001	<0.005	<0.005	0.00045	<0.005	0.0053	<0.0001	0.0264	<0.0005	0.00027	0.0519	<0.0001	<0.001	<0.05	<0.00001	24.6
RSEM-R6E-SP	4/1/2024 15:00	CLP410	0.019	0.991	0.00014	1.11	<0.00002	2.52	0.0618	5.2	<0.00001	<0.005	<0.005	0.00022	<0.005	0.0055	0.00019	0.0385	<0.0005	0.00026	0.0371	<0.0001	<0.001	<0.05	<0.00001	13.0
RSEM-R6E-SP	4/10/2024 13:00	CMA567	0.045	2.55	0.00037	1.9	<0.00002	10.0	0.174	23.5	0.000014	<0.005	0.0105	0.00083	<0.005	0.0052	0.00031	0.0295	<0.0005	0.00036	0.0744	<0.0001	<0.001	<0.05	<0.00001	28.4
RSEM-R6E-SP	4/17/2024 10:00	CMH908	0.073	2.97	0.00032	1.62	<0.00002	8.98	0.202	22.3	0.000012	<0.005	0.0104	0.00083	<0.005	0.0075	0.00017	0.0147	0.0005	0.00032	0.0921	<0.0001	<0.001	<0.05	<0.00001	34.7
RSEM-R6W-EOP	1/1/2024 10:45	CHF524	0.013	4.91	0.00069	3.26	<0.00002	45.8	0.129	11.8	<0.00001	<0.005	<0.005	0.00069	<0.005	0.0091	<0.0001	0.0854	0.00082	0.00138	0.0681	<0.0001	<0.001	0.065	0.000018	27.8
RSEM-R6W-EOP	1/2/2024 13:45	CHG840	<0.01	4.69	0.0007	3.32	<0.00002	45.7	0.129	11.9	<0.00001	<0.005	<0.005	0.0007	<0.005	0.0085	<0.0001	0.107	0.00076	0.0013	0.0659	<0.0001	<0.001	0.069	<0.00001	28.1
RSEM-R6W-EOP	1/3/2024 11:00	CHH927	0.018	4.67	0.00062	3.15	<0.00002	44.1	0.125	11.3	<0.00001	<0.005	<0.005	0.00067	<0.005	0.0078	<0.0001	0.106	0.0008	0.00129	0.0644	<0.0001	<0.001	0.064	<0.00001	27.2
RSEM-R6W-EOP	1/3/2024 11:00	CHH928	<0.01	4.86	0.00064	3.25	<0.00002	46.0	0.129	12.2	<0.00001	<0.005	<0.005	0.00068	<0.005	0.0082	<0.0001	0.115	0.0008	0.00128	0.0643	<0.0001	<0.001	0.066	<0.00001	27.2
RSEM-R6W-EOP	1/4/2024 12:00	CHJ028	<0.01	4.79	0.00064	3.22	<0.00002	44.8	0.127	11.5	<0.00001	<0.005	<0.005	0.00067	<0.005	0.0078	<0.0001	0.139	0.00063	0.00122	0.0612	<0.0001	<0.001	0.059	0.000012	28.3
RSEM-R6W-EOP	1/5/2024 10:45	CHJ034	0.014	4.57	0.00066	3.32	<0.00002	43.8	0.124	11.5	<0.00001	<0.005	<0.005	0.00065	<0.005	0.0077	<0.0001	0.132	0.00066	0.0012	0.0599	<0.0001	<0.001	0.057	<0.00001	28.1
RSEM-R6W-EOP	1/6/2024 9:00	CHK438	<0.01	5.15	0.00065	3.32	<0.00002	51.0	0.139	13.3	<0.00001	<0.005	<0.005	0.00061	<0.005	0.009	<0.0001	0.134	0.00065	0.00116	0.059	<0.0001	<0.001	0.06	<0.00001	28.1
RSEM-R6W-EOP	1/7/2024 12:05	CHK447	<0.01	4.46	0.00064	3.67	<0.00002	47.4	0.131	9.9	<0.00001	<0.005	<0.005	0.00067	<0.005	0.0093	<0.0001	0.155	0.00065	0.00122	0.0593	<0.0001	<0.001	0.058	<0.00001	29.0
RSEM-R6W-EOP	1/8/2024 9:50	CHM078	0.011	5.19	0.00063	3.43	<0.00002	51.0	0.145	13.5	<0.00001	<0.005	<0.005	0.00061	<0.005	0.0094	<0.0001	0.109	0.00065	0.00112	0.0578	<0.0001	<0.001	0.057	<0.00001	29.5
RSEM-R6W-EOP	1/9/2024 11:00	CHN193	<0.01	5.05	0.00061	3.3	<0.00002	48.6	0.137	12.5	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0097	<0.0001	0.156	0.00076	0.00127	0.0613	<0.0001	<0.001	0.059	<0.00001	28.5
RSEM-R6W-EOP	1/10/2024 11:30	CHO389	<0.01	5.13	0.00063	3.47	<0.00002	50.4	0.145	12.8	<0.00001	<0.005	<0.005	0.00061	<0.005	0.01	<0.0001	0.165	0.00069	0.00114	0.0579	<0.0001	<0.001	0.058	<0.00001	26.6
RSEM-R6W-EOP	1/10/2024 11:30	CHO390	<0.01	5.00	0.00062	3.45	<0.00002	48.5	0.137	12.3	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0091	<0.0001	0.147	0.00071	0.00131	0.0588	<0.0001	<0.001	0.057	0.000011	28.1
RSEM-R6W-EOP	1/11/2024 11:15	CHP223	<0.01	4.39	0.00062	3.3	<0.00002	45.7	0.133	10.2	<0.00001	<0.005	<0.005	0.00058	<0.005	0.0101	<0.0001	0.111	0.0007	0.00133	0.0584	<0.0001	<0.001	0.064	<0.00001	28.2
RSEM-R6W-EOP	1/12/2024 10:30	CHP220	<0.01	4.51	0.00067	3.58	<0.00002	48.7	0.133	10.9	<0.00001	<0.005	<0.005	0.00061	<0.005	0.0096	<0.0001	0.107	0.00068	0.00133	0.0587	<0.0001	<0.001	0.063	<0.00001	28.4
RSEM-R6W-EOP	1/13/2024 11:30	CHQ989	0.016	4.06	0.00064	3.29	<0.00002	43.4	0.124	9.2	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0075	<0.0001	0.0973	0.00071	0.00137	0.0567	<0.0001	<0.001	0.064	<0.00001	28.1
RSEM-R6W-EOP	1/14/2024 13:00	CHQ993	0.017	3.81	0.00064	3.49	<0.00002	43.6	0.124	9.8	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0071	0.00017	0.107	0.00069	0.00146	0.0567	<0.0001	<0.001	0.064	<0.00001	28.1
RSEM-R6W-EOP	1/15/2024 13:00	CHR959	0.016	3.65	0.00063	3.4	<0.00002	43.5	0.123	9.4	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0075	0.00011	0.0854	0.00073	0.00131	0.0561	<0.0001	<0.001	0.066	0.000014	28.1
RSEM-R6W-EOP	1/16/2024 11:45	CHT492	0.019	3.41	0.00069	3.35	<0.00002	49.3	0.132	9.7	<0.00001	<0.005	<0.005	0.00053	<0.005	0.0128	0.00011	0.115	0.00068	0.00128	0.0622	<0.0001	<0.001	0.071	<0.00001	30.5
RSEM-R6W-EOP	1/17/2024 12:30	CHU411	0.015	3.39	0.00064	3.37	<0.00002	49.9	0.131	9.6	<0.00001	<0.005	<0.005	0.00053	<0.005	0.0091	<0.0001	0.0833	0.00071	0.00122	0.0639	<0.0001	<0.001	0.072	<0.00001	31.6
RSEM-R6W-EOP	1/18/2024 12:30	CHV452	0.015	3.40	0.00068	3.49	<0.00002	49.7	0.133	9.8	<0.00001	<0.005	<0.005	0.00053	<0.005	0.0104	0.00016	0.0741	0.00074	0.00124	0.0657	<0.0001	<0.001	0.072	<0.00001	33.0
RSEM-R6W-EOP	1/19/2024 10:30	CHV453	0.018	3.49	0.00068	3.58	<0.00002	49.7	0.136	9.6	<0.00001	<0.005	<0.005	0.00053	<0.005	0.0109	0.00015	0.0672	0.00073	0.00119	0.066	<0.0001	<0.001	0.072	<0.00001	33.2
RSEM-R6W-EOP	1/19/2024 10:30	CHV454	0.015	3.61	0.00068	3.65	<0.00002	50.4	0.137	9.8	<0.00001	<0.005	<0.005	0.00056	<0.005	0.0113	0.00025	0.0654	0.00074	0.00124	0.0671	<0.0001	<0.001	0.074	<0.00001	34.2
RSEM-R6W-EOP	1/20/2024 10:40	CHX469	0.03	4.02	0.00067	3.72	<0.00002	43.1	0.128	9.5	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0126	0.00012	0.0818	0.00075	0.00115	0.0638	<0.0001	<0.001	0.059	<0.00001	31.3
RSEM-R6W-EOP	1/21/2024 12:45	CHX463	0.035	3.97	0.00065	3.58	<0.00002	42.1	0.125	8.7	<0.00001	<0.005	<0.005	0.00056	<0.005	0.0116	0.00012	0.082	0.00072	0.00112	0.0619	<0.0001	<0.001	0.058	<0.00001	30.5
RSEM-R6W-EOP	1/22/2024 14:00	CHZ272	0.035	3.75	0.00063	3.5	<0.00002	36.7	0.122	7.8	<0.00001	<0.005	<0.005	0.00054	<0.005	0.0095	0.00015	0.0541	0.00067	0.001	0.0574	<0.0001	<0.001	0.051	<0.00001	29.2
RSEM-R6W-EOP	1/23/2024 13:50	CIB305	0.021	3.30	0.00057	3.54	<0.00002	40.0	0.137	9.5	<0.00001	<0.005	<0.005	0.00058	<0.005	0.009	0.00013	0.0795	0.00059	0.001	0.0602	<0.0001	<0.001	0.051	<0.00001	28.9

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	T-P	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	1/24/2024 18:30	CIC566	0.014	2.99	0.00056	3.43	<0.00002	38.0	0.129	8.9	<0.00001	<0.005	<0.005	0.00055	<0.005	0.0071	0.00013	0.0685	0.00056	0.00101	0.056	<0.0001	<0.001	<0.05	<0.00001	28.2
RSEM-R6W-EOP	1/25/2024 14:30	CID850	0.027	2.71	0.00057	3.43	<0.00002	35.2	0.126	8.8	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0061	0.00015	0.0925	0.00055	0.00098	0.0509	<0.0001	<0.001	<0.05	<0.00001	27.4
RSEM-R6W-EOP	1/26/2024 11:00	CID849	0.021	2.57	0.00057	3.32	<0.00002	35.3	0.131	8.9	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0059	<0.0001	0.0909	0.00051	0.00093	0.0505	<0.0001	<0.001	<0.05	<0.00001	27.8
RSEM-R6W-EOP	1/27/2024 12:50	CIG715	0.023	2.37	0.00045	3.1	<0.00002	31.1	0.125	9.0	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	0.0679	<0.0005	0.00094	0.0479	<0.0001	<0.001	<0.05	<0.00001	27.2
RSEM-R6W-EOP	1/28/2024 12:45	CIG841	0.023	2.27	0.00047	3.16	<0.00002	31.3	0.126	9.2	<0.00001	<0.005	<0.005	0.00051	<0.005	0.0053	<0.0001	0.0694	<0.0005	0.00094	0.0475	<0.0001	<0.001	<0.05	<0.00001	27.4
RSEM-R6W-EOP	1/28/2024 12:45	CIG842	0.016	2.13	0.00043	3.03	<0.00002	29.2	0.119	8.6	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	0.0729	<0.0005	0.00088	0.0493	<0.0001	<0.001	<0.05	<0.00001	28.6
RSEM-R6W-EOP	1/29/2024 11:00	CIG695	0.026	2.06	0.00043	3.01	<0.00002	28.7	0.119	8.6	<0.00001	<0.005	<0.005	0.0005	<0.005	0.0052	<0.0001	0.068	<0.0005	0.00089	0.0473	<0.0001	<0.001	<0.05	<0.00001	28.2
RSEM-R6W-EOP	1/30/2024 12:20	CIK217	0.022	2.14	0.00044	2.97	<0.00002	29.2	0.119	9.2	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	0.072	<0.0005	0.00092	0.0453	<0.0001	<0.001	<0.05	<0.00001	26.4
RSEM-R6W-EOP	1/31/2024 13:00	CIM176	0.026	2.15	0.00046	3.08	<0.00002	28.0	0.117	8.2	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0058	0.00012	0.0881	0.00058	0.00101	0.0525	<0.0001	<0.001	<0.05	<0.00001	27.2
RSEM-R6W-EOP	2/1/2024 13:45	CIO169	0.024	2.03	0.00042	2.82	<0.00002	27.1	0.118	8.0	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	0.0789	0.00052	0.00085	0.0513	<0.0001	<0.001	<0.05	<0.00001	25.4
RSEM-R6W-EOP	2/1/2024 13:55	CIO170	0.017	1.97	0.00041	2.78	<0.00002	26.3	0.113	7.9	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	0.0001	0.0778	0.00053	0.00089	0.0517	<0.0001	<0.001	<0.05	<0.00001	26.1
RSEM-R6W-EOP	2/2/2024 11:45	CIO173	0.019	2.00	0.00049	2.91	<0.00002	27.1	0.117	8.4	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	0.00011	0.087	<0.0005	0.00087	0.0509	<0.0001	<0.001	<0.05	<0.00001	26.4
RSEM-R6W-EOP	2/3/2024 13:05	CIS948	0.019	2.05	0.00051	2.83	<0.00002	25.9	0.12	10.2	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0068	0.00011	0.065	<0.0005	0.00079	0.0513	<0.0001	<0.001	<0.05	<0.00001	26.4
RSEM-R6W-EOP	2/3/2024 13:15	CIS949	0.017	2.02	0.0005	2.81	<0.00002	25.5	0.119	10.3	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	0.0001	0.0655	<0.0005	0.00087	0.0509	<0.0001	<0.001	<0.05	<0.00001	27.9
RSEM-R6W-EOP	2/4/2024 13:55	CIQ708	<0.01	1.60	0.00049	2.8	<0.00002	22.9	0.101	7.9	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	0.0962	<0.0005	0.00081	0.0547	<0.0001	<0.001	<0.05	<0.00001	26.7
RSEM-R6W-EOP	2/5/2024 10:25	CIQ698	<0.01	1.51	0.00051	2.72	<0.00002	22.7	0.103	8.0	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	0.12	<0.0005	0.00076	0.0581	<0.0001	<0.001	<0.05	<0.00001	26.1
RSEM-R6W-EOP	2/6/2024 13:40	CIV114	0.014	1.86	0.00053	2.9	<0.00002	27.3	0.129	12.1	<0.00001	<0.005	<0.005	0.00063	<0.005	0.0051	<0.0001	0.0675	<0.0005	0.00081	0.0624	<0.0001	<0.001	<0.05	0.000011	28.9
RSEM-R6W-EOP	2/7/2024 12:45	CIW695	0.018	1.78	0.00048	3	<0.00002	28.8	0.131	11.2	<0.00001	<0.005	<0.005	0.00065	<0.005	0.0078	<0.0001	0.0447	<0.0005	0.00077	0.0621	<0.0001	<0.001	<0.05	<0.00001	30.3
RSEM-R6W-EOP	2/8/2024 14:30	CIY459	0.019	1.65	0.0005	2.89	<0.00002	27.1	0.128	10.5	<0.00001	<0.005	<0.005	0.00062	<0.005	0.0082	<0.0001	0.0625	<0.0005	0.0008	0.0633	<0.0001	<0.001	<0.05	<0.00001	31.0
RSEM-R6W-EOP	2/9/2024 10:45	CIY470	0.014	1.72	0.00051	2.97	<0.00002	27.5	0.135	10.3	<0.00001	<0.005	<0.005	0.00064	<0.005	0.008	<0.0001	0.0582	<0.0005	0.00078	0.0598	<0.0001	<0.001	<0.05	<0.00001	30.7
RSEM-R6W-EOP	2/10/2024 8:45	CJA995	0.018	1.53	0.0005	2.84	<0.00002	24.7	0.125	8.8	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	0.0456	<0.0005	0.00079	0.061	<0.0001	<0.001	<0.05	<0.00001	31.1
RSEM-R6W-EOP	2/11/2024 13:30	CJA989	0.014	1.52	0.00047	2.89	<0.00002	23.7	0.125	8.3	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	0.0489	<0.0005	0.00076	0.062	<0.0001	<0.001	<0.05	<0.00001	30.7
RSEM-R6W-EOP	2/11/2024 13:30	CJA990	0.015	1.57	0.00049	2.94	<0.00002	24.6	0.127	8.7	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	0.0472	<0.0005	0.00076	0.0626	<0.0001	<0.001	<0.05	<0.00001	30.8
RSEM-R6W-EOP	2/12/2024 11:20	CJD166	0.013	1.54	0.00049	2.98	<0.00002	24.2	0.124	8.4	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	0.055	<0.0005	0.0008	0.0618	<0.0001	<0.001	<0.05	<0.00001	28.2
RSEM-R6W-EOP	2/13/2024 12:50	CJF529	<0.01	1.57	0.00056	3.85	<0.00002	24.2	0.129	7.6	<0.00001	<0.005	<0.005	0.0006	<0.005	0.0054	<0.0001	0.0462	<0.0005	0.00083	0.0647	<0.0001	<0.001	<0.05	<0.00001	28.7
RSEM-R6W-EOP	2/14/2024 12:30	CJH435	<0.01	1.58	0.00056	3.82	<0.00002	24.8	0.134	8.3	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	0.0405	<0.0005	0.00084	0.0665	<0.0001	<0.001	<0.05	<0.00001	27.9
RSEM-R6W-EOP	2/15/2024 14:00	CJJ555	0.015	1.56	0.00053	3.77	<0.00002	24.5	0.131	7.8	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	0.0684	<0.0005	0.00088	0.0735	<0.0001	<0.001	<0.05	<0.00001	31.4
RSEM-R6W-EOP	2/16/2024 10:30	CJJ650	0.01	1.53	0.00052	3.72	<0.00002	23.9	0.13	7.6	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	0.0714	<0.0005	0.00087	0.0736	<0.0001	<0.001	<0.05	<0.00001	31.9
RSEM-R6W-EOP	2/17/2024 13:15	CJM213	0.012	1.46	0.00053	3.09	<0.00002	21.6	0.12	8.3	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	0.0588	<0.0005	0.0008	0.0762	<0.0001	<0.001	<0.05	<0.00001	33.7
RSEM-R6W-EOP	2/18/2024 12:15	CJM243	0.016	1.50	0.00051	3.14	<0.00002	22.4	0.117	8.1	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	0.0586	<0.0005	0.00082	0.079	<0.0001	<0.001	<0.05	<0.00001	33.2
RSEM-R6W-EOP	2/19/2024 10:30	CJL996	<0.01	1.51	0.00053	3.12	<0.00002	22.4	0.122	8.3	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	<0.0001	0.0575	<0.0005	0.00079	0.0798	<0.0001	<0.001	<0.05	<0.00001	33.5
RSEM-R6W-EOP	2/19/2024 10:30	CJL997	0.01	1.49	0.00054	3.11	<0.00002	21.9	0.12	8.1	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	0.00012	0.068	<0.0005	0.00081	0.0807	<0.0001	<0.001	<0.05	<0.00001	33.9
RSEM-R6W-EOP	2/20/2024 10:00	CJO638	0.01	1.44	0.00042	2.95	<0.00002	21.7	0.112	8.0	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	0.0653	<0.0005	0.00079	0.0748	<0.0001	<0.001	<0.05	<0.00001	32.1
RSEM-R6W-EOP	2/21/2024 17:00	CJQ215	<0.01	1.50	0.00048	2.93	<0.00002	22.0	0.12	8.1	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	0.0441	<0.0005	0.00079	0.0689	<0.0001	<0.001	<0.05	<0.00001	30.9
RSEM-R6W-EOP	2/22/2024 12:10	CJR705	<0.01	1.49	0.0005	3	<0.00002	21.8	0.113	8.0	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	0.00011	0.0383	<0.0005	0.00079	0.0687	<0.0001	<0.001	<0.05	<0.00001	30.5
RSEM-R6W-EOP	2/22/2024 12:20	CJR706	0.016	1.47	0.00054	3.03	<0.00002	21.4	0.116	6.8	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	0.0493	<0.0005	0.00082	0.0705	<0.0001	<0.001	<0.05	<0.00001	31.1
RSEM-R6W-EOP	2/23/2024 12:45	CJR710	0.024	1.52	0.00047	3.22	<0.00002	22.0	0.117	6.6	<0.00001	<0.005	<0.005	0.00066	<0.005	0.005	0.00011	0.0361	<0.0005	0.00076	0.0694	<0.0001	<0.001	<0.05	<0.00001	31.3
RSEM-R6W-EOP	2/24/2024 12:45	CJV373	0.034	1.57	0.00045	3.85	<0.00002	21.6	0.116	6.0	0.000012	<0.005	0.0109	0.00065	<0.005	0.0063	0.00078	0.0295	<0.0005	0.00077	0.066	<0.0001	<0.001	<0.05	0.000011	30.8
RSEM-R6W-EOP	2/25/2024 13:50	CJV301	0.026	1.42	0.00045	3.32	<0.00002	20.9	0.111	6.1	<0.00001	<0.005	0.0058	0.0006	<0.005	<0.005	0.00021	0.0394	<0.0005	0.00073	0.0621	<0.0001	<0.001	<0.05	<0.00001	29.5
RSEM-R6W-EOP	2/26/2024 12:10	CJV275	0.015	1.38	0.00048	3.17	<0.00002	21.3	0.113	5.8	<0.00001	<0.005	0.007	0.00065	<0.005	<0.005	0.00017	0.0458	<0.0005	0.00078	0.0608	<0.0001	<0.001	<0.05	<0.00001	29.2
RSEM-R6W-EOP	2/27/2024 14:20	CJY638	0.02	1.15	0.00044	2.58	<0.00002	19.1	0.111	6.7	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	0.0468	<0.0005	0.00074	0.0673	<0.0001	<0.001	<0.05	<0.00001	29.5
RSEM-R6W-EOP	3/1/2024 11:30	CKD812	0.019	1.16	0.00045	2.61	<0.00002	19.1	0.113	7.0	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	0.0273	<0.0005	0.00072	0.0643	<0.0001	<0.001	<0.05	<0.00001	30.0
RSEM-R6W-EOP	3/4/2024 12:45	CKH347	0.021	1.51	0.00048	2.92	<0.00002	21.6	0.135	9.2	<0.00001	<0.005	<0.005	0.00067	<0.005	0.0067	0.00011	0.0219	<0.0005	0.00068	0.0664	<0.0001	<0.001	<0.05	<0.00001	29.8
RSEM-R6W-EOP	3/7/2024 9:10	CKM296	0.018	1.37	0.00042	2.64	<0.00002	21.3	0.122	7.6	<0.00001	<0.005	<0.005	0.00059	<0.005	0.0054	0.00011	0.0318	<0.0005	0.00072	0.0748	<0.0001	<0.001	<0.05	<0.00001	28.8
RSEM-R6W-EOP	3/10/2024 9:30	CKP223	0.022	1.27	0.00043	2.79	<0.00002	19.1	0.114	5.9	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	0.00017	0.0488	<0.0005	0.00074	0.0716	<0.0001	<0.001	<0.05	0.000011	27.7
RSEM-R6W-EOP	3/13/2024 12:20	CKU761	0.04	2.66	0.00047	3.05	<0.00002	22.7	0.157	12.2	<0.00001	<0.005	0.0097	0.00067	<0.005	0.0061	0.0002	0.0289	<0.0005	0.00061	0.0734	<0.0001	<0.001	<0.05	0.000016	32.7
RSEM-R6W-EOP	3/14/2024 13:30	CKW691	0.042	1.73	0.00026	2.53	<0.00002	13.7	0.0925	11.5	0.000012	<0.005	0.0145	0.00039	<0.005	0.0213	0.00048	0.0132	<0.0005	0.00045	0.0469	<0.0001	<0.001	<0.05	0.00002	19.9
RSEM-R6W-EOP	3/17/2024 13:05	CKY637	0.033	2.47	0.00056	3.84	<0.00002	26.1	0.156	15.2	<0.00001	<0.005	0.007	0.0006	<0.005	0.0077	0.00023	0.0218	0.00055	0.00077	0.0531	<0.0001	<0.001	<0.05	0.000015	27.6
RSEM-R6W-EOP	3/18/2024 11:20	CKY613	0.028	2.20	0.00052	3.46	<0.00002	26.4	0.146	14.6	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	0.00016	0.0294	0.00053	0.00082	0.0527	<0.0001	<0.001	<0.05	0.000013	27.1
RSEM-R6W-EOP	3/20/2024 11:10	CLD624	0.027	1.91	0.0007	3.15	<0.00002	26.2	0.14	16.0	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	0.0001	0.0342	0.00057	0.00085	0.042	<0.0001	<0.001	<0.05	0.000011	24.9
RSEM-R6W-EOP	3/23/2024 12:45	CLG612	0.022	2.20	0.00073	3.01	<0.00002	25.3	0.156	22.1	<0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001	0.0313	0.00061	0.00086	0.0449	<0.0001	<0.001	<0.05	<0.00001	30.1
RSEM-R6W-EOP	3/26/2024 11:00	CLK396	<0.01	2.25	0.00072	2.58	<0.00002	27.7	0.153	20.2	<0.00001	<0.005	<0.005	0.00073	<0.005	0.0095	<0.0001	0.0416	0.00057	0.00083	0.0436	<0.0001	<0.001	<0.05	0.000011	31.5
RSEM-R6W-EOP	3/29/2024 11:45	CLN878	0.016	1.78	0.0006	2.82	<0.00002	22.9	0.119	15.9	<0.00001	<0.005	<0.005	0.00064	<0.005	0.0067	0.0001	0.0559	<0.0005	0.00076	0.0365	<0.0001	<0.001	<0.05	<0.00001	25.5
RSEM-R6W-EOP	4/1/2024 14:00	CLP411	0.022	1.40	0.00048	2.48	<0.00002	22.7	0.0935	9.5	<0.00001	<0.005	<0.005	0.00055	<0.005	0.0077	<0.0001	0.0462	<0.0005	0.00073	0.0355	<0.0001	<0.001	<0.05	<0.00001	22.5

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	T-P	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	4/4/2024 11:30	CLU068	0.013	1.34	0.00044	2.54	<0.00002	23.9	0.0973	9.5	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	0.0473	<0.0005	0.00073	0.0396	<0.0001	<0.001	<0.05	<0.00001	21.5
RSEM-R6W-EOP	4/4/2024 11:30	CLU069	0.011	1.34	0.00045	2.48	0.00002	24.2	0.0973	9.5	<0.00001	<0.005	<0.005	0.00053	<0.005	0.005	0.00011	0.0461	<0.0005	0.00075	0.0398	<0.0001	<0.001	<0.05	<0.00001	21.6
RSEM-R6W-EOP	4/7/2024 14:15	CLV772	0.02	1.47	0.00046	2.66	<0.00002	20.0	0.104	11.1	<0.00001	<0.005	<0.005	0.00058	<0.005	0.0063	0.00012	0.0353	<0.0005	0.00065	0.0425	<0.0001	<0.001	<0.05	<0.00001	22.6
RSEM-R6W-EOP	4/10/2024 12:30	CMA568	0.024	1.32	0.00044	2.08	<0.00002	24.7	0.0981	9.3	<0.00001	<0.005	<0.005	0.00054	<0.005	0.0059	0.00012	0.0421	<0.0005	0.0007	0.0465	<0.0001	<0.001	<0.05	<0.00001	19.2
RSEM-R6W-EOP	4/13/2024 9:30	CMD320	0.019	1.34	0.00049	2.54	<0.00002	23.6	0.103	8.6	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	0.00023	0.0607	<0.0005	0.00077	0.0501	<0.0001	<0.001	<0.05	<0.00001	20.3
RSEM-R6W-EOP	4/16/2024 13:30	CMF985	0.02	1.37	0.00052	2.59	<0.00002	30.3	0.11	8.9	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	0.00012	0.0796	<0.0005	0.00081	0.0529	<0.0001	<0.001	<0.05	<0.00001	25.2
RSEM-R6W-EOP	4/16/2024 13:30	CMF986	0.013	1.35	0.00053	2.68	<0.00002	24.4	0.112	8.8	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	0.00016	0.079	<0.0005	0.00082	0.0529	<0.0001	<0.001	<0.05	<0.00001	25.1
RSEM-R6W-EOP	4/19/2024 11:00	CMJ300	0.019	1.20	0.00053	2.18	<0.00002	26.1	0.104	8.8	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	0.103	<0.0005	0.00085	0.0517	<0.0001	<0.001	<0.05	<0.00001	24.2
RSEM-R6W-SP	3/24/2024 11:00	CLG644	0.017	0.686	0.00013	0.476	<0.00002	5.51	0.0208	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0314	<0.0001	0.0148	<0.0005	0.00021	0.0148	<0.0001	<0.001	<0.05	<0.00001	5.70
RSEM-R6W-SP	3/24/2024 11:00	CLG645	0.017	0.671	0.00011	0.453	<0.00002	5.20	0.0211	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0295	<0.0001	0.0142	<0.0005	0.00022	0.015	<0.0001	<0.001	<0.05	<0.00001	5.33
RSEM-R6-EP-US-SD	3/17/2024 14:40	CKY640	2.9	5.69	0.00579	11.3	0.00015	27.6	0.65	298	0.000097	<0.025	0.141	0.0241	<0.025	2.88	0.00116	6.96	<0.0025	<0.0005	0.0665	0.00289	<0.005	<0.25	0.018	223
RSEM-R6-EP-US-SD	3/31/2024 14:50	CLN879	2.57	4.32	0.00333	14.8	0.000293	20.9	0.35	75.9	0.00018	<0.005	0.0875	0.0101	0.0332	1.01	0.00053	0.114	<0.0005	<0.0001	0.0187	<0.0001	<0.001	<0.05	0.000318	62.4
WP-SP	4/6/2024 14:20	CLV795	0.117	3.72	0.00247	4.1	0.000037	2.03	3.16	47.3	0.000056	<0.005	0.0106	0.00222	0.0084	0.0294	0.0004	0.0053	<0.0005	<0.0001	0.0547	<0.0001	<0.001	<0.05	<0.00001	67.1
Area_A_N_Ditch	3/25/2024 14:30	CLI203	0.035	1.61	0.00083	2.68	<0.00002	4.58	0.119	15.0	0.000016	<0.005	0.0085	0.00093	<0.005	<0.005	0.00025	<0.003	<0.0005	0.00028	0.0958	<0.0001	<0.001	<0.05	<0.00001	56.4
Area_A_N_Ditch	6/16/2024 13:00	CPO245	0.043	2.48	0.00044	3.54	<0.00002	5.80	0.153	21.8	<0.00001	<0.005	0.0081	0.00091	<0.005	<0.005	0.00013	<0.003	<0.0005	0.00082	0.16	<0.0001	<0.001	<0.05	<0.00001	61.8
AK_Pond	1/4/2024 12:35	CHJ029	0.016	3.97	0.00058	3.01	<0.00002	34.6	0.108	8.4	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	0.365	0.00063	0.00127	0.0415	<0.0001	<0.001	0.053	<0.00001	23.2
AK_Pond	1/11/2024 12:00	CHP222	0.055	2.51	0.00065	4.39	0.000026	43.5	0.108	8.7	0.000015	<0.005	0.013	0.00058	0.0053	0.0066	0.00043	0.35	0.00064	0.00164	0.0507	<0.0001	<0.001	0.062	<0.00001	22.7
AK_Pond	1/19/2024 11:20	CHV456	0.036	2.98	0.00053	4.63	<0.00002	31.3	0.113	7.3	0.000017	<0.005	0.0301	0.00048	0.0054	0.0054	0.00095	0.242	0.00054	0.00117	0.0562	<0.0001	<0.001	<0.05	<0.00001	26.3
AK_Pond	1/25/2024 15:00	CID851	0.019	1.80	0.00052	3.26	<0.00002	31.1	0.128	7.9	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	0.00015	0.252	<0.0005	0.00095	0.04	<0.0001	<0.001	<0.05	<0.00001	26.0
AK_Pond	1/30/2024 13:25	CIK220	0.053	2.01	0.00044	3.35	<0.00002	25.1	0.124	8.6	<0.00001	<0.005	0.0101	0.00054	<0.005	0.0064	0.0002	0.198	<0.0005	0.00095	0.0451	<0.0001	<0.001	<0.05	<0.00001	25.8
AK_Pond	2/9/2024 11:30	CIY471	0.238	3.01	0.00075	7.89	0.000064	23.7	0.145	10.5	0.000089	<0.005	0.011	0.00092	0.0115	0.0193	0.00054	0.0867	0.00063	0.0015	0.135	<0.0001	<0.001	<0.05	<0.00001	29.1
AK_Pond	2/17/2024 13:30	CJM214	0.035	1.82	0.00052	6.33	<0.00002	21.3	0.117	7.6	0.000019	<0.005	0.0451	0.00068	0.0064	<0.005	0.00125	0.158	<0.0005	0.00079	0.077	<0.0001	<0.001	<0.05	<0.00001	31.8
AK_Pond	2/22/2024 12:50	CJR708	0.017	1.27	0.00047	3.68	<0.00002	20.6	0.108	5.8	<0.00001	<0.005	0.0111	0.00059	<0.005	<0.005	0.00024	0.126	<0.0005	0.00073	0.0453	<0.0001	<0.001	<0.05	<0.00001	28.2
AK_Pond	3/1/2024 10:45	CKD813	0.046	1.53	0.00047	4.06	<0.00002	20.5	0.125	8.1	0.00002	<0.005	0.0182	0.00065	<0.005	0.0052	0.0006	0.114	<0.0005	0.00072	0.0469	<0.0001	<0.001	<0.05	<0.00001	29.6
AK_Pond	3/6/2024 13:15	CKK595	0.04	1.37	0.00043	3.02	<0.00002	20.0	0.115	6.6	0.000016	<0.005	<0.005	0.00057	<0.005	<0.005	0.00017	0.123	<0.0005	0.00069	0.0625	<0.0001	<0.001	<0.05	<0.00001	28.6
AK_Pond	3/6/2024 13:15	CKK596	0.04	1.45	0.00047	3.22	<0.00002	20.9	0.124	7.3	0.000014	<0.005	<0.005	0.0006	<0.005	<0.005	0.00021	0.124	<0.0005	0.00071	0.0636	<0.0001	<0.001	<0.05	<0.00001	28.9
AK_Pond	3/13/2024 13:15	CKU763	0.053	2.11	0.00064	10.4	0.000106	26.3	0.181	8.6	0.000027	<0.005	0.103	0.00073	0.0091	0.0128	0.00271	0.114	0.00059	0.00112	0.0166	<0.0001	<0.001	<0.05	<0.00001	8.92
AK_Pond	3/20/2024 11:30	CLD625	0.048	2.39	0.00076	4.66	<0.00002	26.3	0.18	21.3	0.000017	<0.005	0.0265	0.00085	0.005	0.0055	0.00099	0.151	0.0006	0.00097	0.0606	<0.0001	<0.001	<0.05	<0.00001	31.7
AK_Pond	3/31/2024 13:15	CLN880	0.036	1.34	0.00051	4.61	<0.00002	23.1	0.109	7.3	0.000014	<0.005	0.0222	0.00054	<0.005	0.0055	0.00105	0.286	<0.0005	0.00107	0.0408	<0.0001	<0.001	<0.05	<0.00001	25.7
AK_Pond	4/4/2024 12:20	CLU071	0.081	1.52	0.00055	4.19	0.000029	28.4	0.117	7.9	0.000033	<0.005	0.0155	0.00061	0.006	0.0168	0.00052	0.23	<0.0005	0.00108	0.0474	<0.0001	<0.001	<0.05	<0.00001	25.0
AK_Pond	4/10/2024 13:45	CMA570	<0.01	1.00	0.00052	2.33	<0.00002	26.6	0.107	7.1	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	0.0001	0.262	<0.0005	0.00091	0.0404	<0.0001	<0.001	<0.05	<0.00001	22.2
AK_Pond	4/19/2024 11:30	CMJ299	0.037	1.37	0.00054	3.31	0.000028	24.8	0.106	8.7	<0.00001	<0.005	0.006	0.00055	<0.005	0.006	0.00026	0.334	<0.0005	0.00089	0.0383	<0.0001	<0.001	<0.05	<0.00001	22.0
Area_30_EOP	1/30/2024 14:50	CIK221	0.098	4.61	0.00106	2.52	<0.0001	3.95	2.86	194	<0.00005	<0.025	<0.025	0.00275	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.0314	<0.0005	<0.005	<0.25	<0.00005	138
Area_30_EOP	3/16/2024 14:15	CKY601	<0.05	3.66	0.00124	1.89	<0.0001	6.83	2.31	151	<0.00005	<0.025	<0.025	0.00421	<0.025	0.032	<0.0005	<0.015	<0.0025	<0.0005	0.0266	<0.0005	<0.005	<0.25	<0.00005	121
Area_30_EOP	3/16/2024 14:25	CKY602	0.03	3.18	0.00138	1.64	<0.00002	5.40	2.08	137	<0.00001	<0.005	<0.005	0.00375	<0.005	0.0182	<0.0001	<0.003	<0.0005	0.00019	0.0277	<0.0001	<0.001	<0.05	0.000015	127
Area_30_EOP	5/2/2024 13:45	CNB011	<0.05	5.10	0.00362	2.16	<0.0001	9.98	4.65	354	<0.00005	<0.025	<0.025	0.00615	<0.025	0.046	<0.0005	<0.015	<0.0025	<0.0005	0.0347	<0.0005	<0.005	<0.25	<0.00005	303
L3-DC-DS	3/15/2024 10:45	CKW726																								
L3-DC-DS	6/16/2024 9:00	CPO240																								
L3-DC-DS	6/24/2024 12:30	CQB494																								
L3-DC-US	3/15/2024 10:40	CKW725																								
L3-DC-US	6/16/2024 8:45	CPO239																								
L3-DC-US	6/24/2024 12:45	CQB495																								
RSEM-L6-SP	3/18/2024 10:30	CKY612	0.043	3.18	0.00095	2.18	<0.00002	16.7	0.179	28.5	0.000012	<0.005	0.0097	0.00125	<0.005	0.0068	0.00038	0.007	<0.0005	0.00026	0.0432	<0.0001	<0.001	<0.05	0.000043	40.6
RSEM-L6-SP	4/5/2024 11:35	CLU073	<0.05	1.48	<0.0005	1.04	<0.0001	10.5	0.0908	<15	<0.00005	<0.025	<0.025	0.00061	<0.025	<0.025	<0.0005	0.0217	<0.0005	0.00016	0.0296	<0.0001	<0.001	<0.05	<0.00001	22.4
RSEM-L6-SP	4/10/2024 12:00	CMA569	0.012	3.47	0.00104	1.12	<0.00002	39.4	0.271	55.4	<0.00001	<0.005	<0.005	0.00192	<0.005	<0.005	0.00017	0.0206	<0.0005	0.00031	0.041	<0.0001	<0.001	0.055	0.00001	48.2
MWTF-SLP-R6	1/7/2024 12:55	CHK448	0.013	3.87	0.00062	3.66	<0.00002	40.7	0.116	9.0	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	0.0785	0.00054	0.00091	0.0442	<0.0001	<0.001	0.05	<0.00001	24.1
MWTF-SLP-R6	1/13/2024 13:30	CHQ988	0.021	3.05	0.00059	3.41	<0.00002	41.3	0.112	8.7	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	0.00013	0.0946	0.00065	0.00146	0.0514	<0.0001	<0.001	0.059	<0.00001	23.6
MWTF-SLP-R6	1/22/2024 14:40	CHZ273	0.035	2.76	0.00057	3.18	<0.00002	28.9	0.113	7.0	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	0.00012	0.0535	0.00054	0.00081	0.0495	<0.0001	<0.001	<0.05	<0.00001	26.2
MWTF-SLP-R6	1/28/2024 13:40	CIG844	0.021	1.91	0.00046	2.94	<0.00002	27.6	0.116	8.8	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	0.0537	<0.0005	0.00082	0.0403	<0.0001	<0.001	<0.05	<0.00001	26.8
MWTF-SLP-R6	1/30/2024 13:00	CIK219	0.026	2.14	0.00043	2.98	0.000036	28.7	0.129	10.0	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	0.0001	0.146	<0.0005	0.00097	0.0479	<0.0001	<0.001	<0.05	<0.00001	25.7
MWTF-SLP-R6	2/8/2024 15:30	CIY460	0.022	1.67	0.00051	3.61	<0.00002	24.6	0.138	8.9	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	0.0661	<0.0005	0.00082	0.0667	<0.0001	<0.001	<0.05	<0.00001	29.0
MWTF-SLP-R6	2/15/2024 12:40	CJJ556	0.015	1.48	0.00051	3.69	<0.00002	23.0	0.126	7.5	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	0.066	<0.0005	0.00078	0.0751	<0.0001	<0.001	<0.05	<0.00001	30.5
MWTF-SLP-R6	2/22/2024 13:30	CJR709	0.018	1.39	0.00044	3.18	<0.00002	21.6	0.112	5.9	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	0.0442	<0.0005	0.00078	0.0639	<0.0001	<0.001	<0.05	<0.00001	29.2
MWTF-SLP-R6	3/4/2024 13:15	CKH348	0.029	1.44	0.00048	2.92	<0.00002	20.2	0.13	9.1	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	0.00014	0.0267	<0.0005	0.00067	0.0661	<0.0001	<0.001	<0.05	<0.00001	29.0

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	T-P	T-K	T-Se	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MWTF-SLP-R6	3/10/2024 10:20	CKP224	0.022	1.34	0.0004	3.13	<0.00002	19.8	0.116	6.7	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	0.00012	0.0406	<0.0005	0.00073	0.0816	<0.0001	<0.001	<0.05	<0.00001	27.3
MWTF-SLP-R6	3/13/2024 12:55	CKU762	0.028	1.63	0.00046	3.09	<0.00002	24.0	0.129	9.1	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	0.00019	0.0343	<0.0005	0.00084	0.0681	<0.0001	<0.001	<0.05	<0.00001	26.5
MWTF-SLP-R6	3/20/2024 12:00	CLD626	0.031	2.27	0.00081	3.31	<0.00002	26.7	0.159	22.9	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	0.00012	0.0302	0.00068	0.0008	0.0347	<0.0001	<0.001	<0.05	<0.00001	26.2
MWTF-SLP-R6	3/31/2024 14:00	CLN881	0.018	1.23	0.00054	3.19	<0.00002	23.0	0.0893	8.3	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	0.00025	0.0907	<0.0005	0.0008	0.0302	<0.0001	<0.001	<0.05	<0.00001	20.5
MWTF-SLP-R6	4/4/2024 14:00	CLU072	0.015	1.58	0.00045	2.56	<0.00002	25.7	0.116	14.5	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	0.139	<0.0005	0.00088	0.0348	<0.0001	<0.001	<0.05	<0.00001	23.2
MWTF-SLP-R6	4/13/2024 8:50	CMD321	0.016	1.15	0.00048	2.63	<0.00002	25.8	0.113	8.4	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	0.0742	<0.0005	0.00079	0.0439	<0.0001	<0.001	<0.05	<0.00001	21.7
MWTF-SLP-R6	4/19/2024 23:45	CMJ301	0.018	1.12	0.00048	2.48	<0.00002	26.8	0.101	8.8	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	0.243	<0.0005	0.00088	0.0403	<0.0001	<0.001	<0.05	<0.00001	23.1
85-EP	2/1/2024 10:55	CIO172																								
Area_30_SP	6/2/2024 13:00	COP885	<0.05	6.27	0.00121	0.888	<0.0001	20.6	8.26	598	<0.00005	<0.025	<0.025	0.00843	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00052	0.059	<0.0005	<0.005	<0.25	<0.00005	489
Area_30_SP	6/2/2024 13:00	COP886	<0.05	7.90	0.00154	0.793	<0.0001	24.6	9.89	783	<0.00005	<0.025	<0.025	0.0108	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00059	0.0605	<0.0005	<0.005	<0.25	<0.00005	509
Area_30_SP	6/16/2024 10:00	CPO241	<0.05	3.70	0.00306	1.87	<0.0001	7.18	4.57	225	<0.00005	<0.025	<0.025	0.00326	<0.025	<0.025	<0.0005	<0.015	<0.0025	<0.0005	0.0494	<0.0005	<0.005	<0.25	<0.00005	224
85-IDZ	1/30/2024 16:35	CIK224																								
85-IDZ	3/15/2024 13:15	CKW729																								
85-IDZ	5/1/2024 13:20	CMZ165																								
85-IDZ	6/15/2024 16:00	CPO330																								
85-IDZ	6/16/2024 16:45	CPO244																								
85-IDZ	6/17/2024 16:10	CPP867																								
85-IDZ	6/24/2024 15:30	CQB496																								
85-IDZ	6/27/2024 13:45	CQI715																								
L3-W-DC-Sump	3/12/2024 15:30	CKT065																								
L3-W-DC-Sump	3/15/2024 10:30	CKW724																								
L3-W-DC-EOP	3/17/2024 15:35	CKY638																								
L3-W-DC-EOP	5/1/2024 14:40	CMZ167																								
L3-W-DC-EOP	6/16/2024 8:30	CPO238																								
L3-W-DC-EOP	6/24/2024 12:15	CQB493																								
85-EOP	1/30/2024 16:00	CIK222																								
85-EOP	3/15/2024 12:45	CKW727																								
85-EOP	3/17/2024 16:30	CKY639																								
85-EOP	5/1/2024 13:30	CMZ166																								
85-EOP	6/15/2024 16:45	CPO328																								
85-EOP	6/16/2024 16:00	CPO242																								
85-EOP	6/17/2024 16:45	CPP869																								
85-EOP	6/24/2024 16:00	CQB497																								
85-EOP	6/27/2024 13:15	CQI713																								
85-US	1/30/2024 16:25	CIK223																								
85-US	3/15/2024 13:05	CKW728																								
85-US	5/1/2024 13:10	CMZ164																								
85-US	6/15/2024 16:30	CPO329																								
85-US	6/16/2024 16:15	CPO243																								
85-US	6/17/2024 16:30	CPP868																								
85-US	6/24/2024 15:45	CQB498																								
85-US	6/27/2024 13:30	CQI714																								
SeptimusBeaverPond_1	5/2/2024 14:20	CNB012	0.19	7.75	0.00014	2.52	<0.00002	3.47	0.616	39.0	<0.00001	<0.005	<0.005	0.00038	<0.005	<0.005	<0.0001	0.0035	<0.0005	0.00074	0.11	<0.0001	<0.001	<0.05	<0.00001	73.3
SeptimusBeaverPond_4	5/2/2024 15:15	CNB013	0.206	7.27	<0.0001	2.23	<0.00002	3.16	0.412	11.4	<0.00001	<0.005	<0.005	0.00015	<0.005	<0.005	<0.0001	0.0078	<0.0005	0.00073	0.077	<0.0001	<0.001	<0.05	<0.00001	54.1
SeptimusBeaverPond_6	5/2/2024 15:30	CNB014	0.16	11.6	0.00014	1.5	<0.00002	3.59	0.218	39.0	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	0.00014	<0.003	<0.0005	0.00074	0.129	<0.0001	<0.001	<0.05	<0.00001	65.1
SeptimusBeaverPond_8	5/2/2024 15:45	CNB015	0.151	7.86	0.0002	2.37	<0.00002	7.46	0.744	76.6	<0.00001	<0.005	<0.005	0.00258	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00099	0.213	<0.0001	<0.001	<0.05	<0.00001	119

Notes: Under Sample Class "M" denotes a monitoring sample and "D" denotes a field duplicate sample. "<" = Result not detected and is below the indicated detection limit. Values are absent from the table if a test result was not reported.

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	D-Cr	D-Co	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
WP-DS	1/6/2024 14:40	CHK440	<0.001	<0.0002	<0.0002	<0.005	<0.0002	0.0269	10.3	0.002	<0.0000019	0.0012	<0.001	<0.01	1.09	0.00046	1.86	<0.00002	5.33	0.278	5.4	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	<0.10
WP-DS	2/10/2024 14:45	CJA997	<0.001	<0.0002	<0.0002	<0.005	<0.0002	0.021	8.54	0.0016	<0.0000019	<0.001	<0.001	<0.01	0.941	0.00043	1.66	<0.00002	3.98	0.235	5.8	<0.00001	<0.005	<0.005	0.00045	<0.005	<0.005	<0.0001	2.0
WP-DS	3/21/2024 15:00	CLE792	<0.001	<0.0002	<0.0002	<0.005	<0.0002	0.0263	8.83	0.0018	<0.0000019	0.0011	<0.001	<0.01	1.03	0.0005	1.44	<0.00002	4.46	0.244	5.3	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	<0.10
WP-DS	4/6/2024 15:45	CLV797	<0.001	<0.0002	<0.0002	<0.005	<0.0002	0.0245	9.13	0.0019	<0.0000019	0.0012	<0.001	<0.01	1.10	0.00045	1.51	<0.00002	4.46	0.261	5.7	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	0.16
WP-DS	5/4/2024 13:40	CND244	<0.001	<0.0002	0.00029	0.0102	<0.0002	0.0175	8.16	0.0031	<0.0000019	0.0013	<0.001	0.012	0.746	0.00051	1.56	<0.00002	2.69	0.201	4.4	<0.00001	<0.005	<0.005	0.0004	<0.005	<0.005	<0.0001	9.4
WP-DS	6/1/2024 13:50	COP902	<0.001	<0.0002	0.00032	0.0113	<0.0002	0.0068	4.71	0.0019	0.0000023	<0.001	<0.001	<0.01	0.358	0.00035	1.18	<0.00002	1.22	0.116	<3.0	<0.00001	<0.005	<0.005	0.00022	<0.005	<0.005	<0.0001	2.9
WP-US	1/6/2024 14:00	CHK439	<0.001	<0.0002	<0.0002	<0.005	<0.0002	0.0293	10.5	0.0014	<0.0000019	<0.001	<0.001	<0.01	1.19	0.00041	1.84	<0.00002	5.70	0.274	6.1	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	<0.10
WP-US	2/10/2024 14:15	CJA996	<0.001	<0.0002	0.00023	<0.005	<0.0002	0.0216	8.48	0.0015	<0.0000019	<0.001	<0.001	<0.01	0.986	0.00035	1.69	<0.00002	4.05	0.235	5.9	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	0.54
WP-US	3/21/2024 14:40	CLE791	<0.001	<0.0002	<0.0002	<0.005	<0.0002	0.0282	8.76	0.0017	<0.0000019	<0.001	<0.001	<0.01	1.12	0.00044	1.43	<0.00002	4.64	0.242	5.3	<0.00001	<0.005	<0.005	0.00042	<0.005	<0.005	<0.0001	<0.10
WP-US	4/6/2024 15:15	CLV796	<0.001	<0.0002	<0.0002	<0.005	<0.0002	0.0263	9.01	0.0019	<0.0000019	0.001	<0.001	<0.01	1.16	0.00047	1.52	<0.00002	4.64	0.255	5.4	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	0.12
WP-US	5/4/2024 13:15	CND243	<0.001	<0.0002	0.00031	0.0107	<0.0002	0.0173	8.16	0.0029	<0.0000019	0.0012	<0.001	0.01	0.771	0.00042	1.52	<0.00002	2.66	0.199	4.2	<0.00001	<0.005	<0.005	0.0004	<0.005	<0.005	<0.0001	8.8
WP-US	6/1/2024 13:30	COP901	<0.001	<0.0002	0.00034	0.0118	<0.0002	0.0068	4.65	0.002	<0.0000019	<0.001	<0.001	<0.01	0.359	0.00034	1.17	<0.00002	1.22	0.113	<3.0	<0.00001	<0.005	<0.005	0.00021	<0.005	<0.005	<0.0001	3.0
RSEM-R6E-SP	1/4/2024 13:30	CHJ030	<0.001	<0.0002	0.00065	<0.005	<0.0002	0.0112	25.0	<0.001	<0.0000019	0.006	0.0013	<0.01	5.75	0.00065	4.75	<0.00002	23.5	0.343	37.2	0.000011	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	1.2
RSEM-R6E-SP	1/12/2024 11:15	CHP221	<0.001	<0.0002	0.00079	<0.005	<0.0002	0.0155	37.0	0.0052	<0.0000019	0.0069	0.0023	<0.01	7.66	0.00071	4.24	<0.00002	40.7	0.459	53.4	0.000015	<0.005	<0.005	0.00233	<0.005	0.0057	<0.0001	1.4
RSEM-R6E-SP	1/30/2024 12:35	CIK218	<0.001	0.00023	0.00751	0.0142	<0.0002	0.0109	25.6	0.0157	0.0000025	0.0048	0.0024	<0.01	8.23	0.00046	3.08	<0.00002	30.8	0.35	40.7	0.000015	<0.005	<0.005	0.00167	<0.005	0.0268	<0.0001	17
RSEM-R6E-SP	2/7/2024 13:00	CIW696	0.0015	<0.0002	0.00161	0.0499	<0.0002	0.0089	9.32	0.0196	<0.0000019	0.007	0.0018	<0.01	6.13	0.00041	1.6	<0.00002	20.1	0.25	22.2	0.000011	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001	3.5
RSEM-R6E-SP	2/15/2024 13:10	CJJ554	0.0017	<0.0002	0.00171	<0.005	<0.0002	0.0111	12.9	0.0144	<0.0000019	0.0084	0.0022	<0.01	7.99	0.00042	1.66	<0.00002	25.2	0.32	26.0	0.000015	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001	3.6
RSEM-R6E-SP	2/20/2024 10:25	CJO637	0.0018	0.00023	0.00224	<0.005	<0.0002	0.0134	16.9	0.0318	<0.0000019	0.0112	0.0028	<0.01	8.82	0.00059	2.59	<0.00002	31.6	0.422	37.4	0.000015	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	1.8
RSEM-R6E-SP	3/4/2024 13:40	CKH349	0.0021	0.00029	0.00213	<0.005	0.00027	0.0163	15.0	0.0329	0.0000024	0.0168	0.0026	<0.01	10.2	0.00093	2.76	<0.00002	37.8	0.401	43.2	0.000017	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001	2.3
RSEM-R6E-SP	3/10/2024 10:45	CKP225	0.0019	0.00042	0.00685	<0.005	<0.0002	0.0178	18.2	0.0711	<0.0000019	0.0182	0.0036	<0.01	11.9	0.00078	3.06	<0.00002	45.9	0.436	51.9	0.000022	<0.005	<0.005	0.00121	<0.005	0.0458	<0.0001	4.3
RSEM-R6E-SP	3/12/2024 12:45	CKT064	0.0014	0.00022	0.016	0.013	<0.0002	0.0081	5.80	0.0255	<0.0000019	0.0075	0.0015	<0.01	5.98	0.00043	1.54	<0.00002	31.9	0.194	15.8	<0.00001	<0.005	<0.005	0.00044	<0.005	0.0081	<0.0001	34
RSEM-R6E-SP	3/17/2024 13:20	CKY636	0.0011	0.00041	0.0146	0.0096	<0.0002	0.0086	7.45	0.0371	<0.0000019	0.0078	0.0024	<0.01	6.10	0.00045	1.54	<0.00002	31.2	0.208	20.2	0.000013	<0.005	<0.005	0.00054	<0.005	0.0184	<0.0001	13
RSEM-R6E-SP	3/24/2024 10:30	CLG643	<0.001	0.00218	0.00181	<0.005	<0.0002	0.02	18.2	0.205	<0.0000019	0.0125	0.0094	<0.01	5.71	0.00072	2.55	<0.00002	21.0	0.432	59.9	0.000013	<0.005	<0.005	0.00145	<0.005	0.0065	<0.0001	21
RSEM-R6E-SP	3/27/2024 13:45	CLM160	<0.001	0.00053	0.00123	<0.005	<0.0002	0.0079	6.34	0.0539	<0.0000019	0.0045	0.0033	<0.01	2.35	0.00025	1.31	<0.00002	7.41	0.155	19.0	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	8.6
RSEM-R6E-SP	3/29/2024 13:00	CLN877	<0.001	0.00034	0.00125	<0.005	<0.0002	0.0061	4.75	0.0306	<0.0000019	0.0037	0.0024	<0.01	1.92	0.00021	1.26	<0.00002	5.78	0.122	14.8	<0.00001	<0.005	<0.005	0.00043	<0.005	<0.005	<0.0001	9.4
RSEM-R6E-SP	4/1/2024 15:00	CLP410	<0.001	<0.0002	0.00124	<0.005	<0.0002	0.0028	2.00	0.009	<0.0000019	0.0016	<0.001	0.012	0.972	0.00013	0.884	<0.00002	2.28	0.062	5.5	<0.00001	<0.005	<0.005	0.0002	<0.005	<0.005	<0.0001	10
RSEM-R6E-SP	4/10/2024 13:00	CMA567	<0.001	0.00026	0.00073	<0.005	<0.0002	0.0076	8.49	0.0358	<0.0000019	0.0043	0.0025	<0.01	2.29	0.00029	1.12	<0.00002	9.44	0.157	20.3	<0.00001	<0.005	<0.005	0.00073	<0.005	<0.005	<0.0001	21
RSEM-R6E-SP	4/17/2024 10:00	CMH908	<0.001	<0.0002	0.00049	<0.005	<0.0002	0.0093	8.11	<0.001	<0.0000019	0.0042	0.0022	<0.01	3.06	0.00038	1	<0.00002	9.72	0.182	24.3	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001	46
RSEM-R6W-EOP	1/1/2024 10:45	CHF524	<0.001	<0.0002	0.00111	<0.005	<0.0002	0.0127	6.54	0.0031	<0.0000019	0.0129	<0.001	<0.01	4.70	0.00064	3.09	<0.00002	49.4	0.127	11.6	<0.00001	<0.005	<0.005	0.00068	<0.005	0.0068	<0.0001	2.8
RSEM-R6W-EOP	1/2/2024 13:45	CHG840	<0.001	<0.0002	0.00098	<0.005	<0.0002	0.0126	6.60	0.0031	<0.0000019	0.0128	<0.001	<0.01	4.70	0.00069	3.15	<0.00002	49.3	0.121	11.6	<0.00001	<0.005	<0.005	0.00067	<0.005	0.0064	<0.0001	2.7
RSEM-R6W-EOP	1/3/2024 11:00	CHH927	<0.001	<0.0002	0.00103	<0.005	<0.0002	0.0123	6.79	0.003	<0.0000019	0.0129	<0.001	0.013	4.54	0.00063	3.05	<0.00002	49.4	0.122	11.4	<0.00001	<0.005	<0.005	0.00065	<0.005	0.0066	<0.0001	3.2
RSEM-R6W-EOP	1/3/2024 11:00	CHH928	<0.001	<0.0002	0.00102	<0.005	<0.0002	0.0121	6.62	0.0029	<0.0000019	0.0129	<0.001	0.015	4.51	0.00069	3.05	<0.00002	48.3	0.122	11.7	<0.00001	<0.005	<0.005	0.00066	<0.005	0.0053	<0.0001	3.1
RSEM-R6W-EOP	1/4/2024 12:00	CHJ028	<0.001	<0.0002	0.00097	<0.005	<0.0002	0.0105	6.66	0.0023	<0.0000019	0.0116	<0.001	<0.01	4.09	0.00061	3.36	<0.00002	44.3	0.121	10.4	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	2.8
RSEM-R6W-EOP	1/5/2024 10:45	CHJ034	<0.001	<0.0002	0.001	<0.005	<0.0002	0.0103	6.71	0.0025	<0.0000019	0.0117	<0.001	<0.01	4.10	0.00056	3.29	<0.00002	44.8	0.121	10.1	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	2.5
RSEM-R6W-EOP	1/6/2024 9:00	CHK438	<0.001	<0.0002	0.00096	<0.005	<0.0002	0.0101	6.60	0.0034	<0.0000019	0.0115	<0.001	<0.01	4.10	0.00061	3.24	<0.00002	43.9	0.121	10.0	<0.00001	<0.005	<0.005	0.00061	<0.005	0.0055	<0.0001	2.5
RSEM-R6W-EOP	1/7/2024 12:05	CHK447	<0.001	<0.0002	0.00099	<0.005	<0.0002	0.0103	6.77	0.0042	<0.0000019	0.0119	<0.001	<0.01	4.19	0.00064	3.41	<0.00002	44.6	0.125	9.9	<0.00001	<0.005	<0.005	0.00063	<0.005	0.0058	<0.0001	2.4
RSEM-R6W-EOP	1/8/2024 9:50	CHM078	<0.001	<0.0002	0.00093	<0.005	<0.0002	0.0101	6.64	0.0049	<0.0000019	0.0116	<0.001	<0.01	4.09	0.00061	3.45	<0.00002	43.4	0.123	9.7	<0.00001	<0.005	<0.005	0.0006	<0.005	0.0058	<0.0001	2.6
RSEM-R6W-EOP	1/9/2024 11:00	CHN193	<0.001	<0.0002	0.00135	<0.005	<0.0002	0.011	5.95	<0.001	<0.0000019	0.0109	<0.001	<0.01	4.36	0.00059	2.85	<0.00002	42.7	0.12	9.9	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0083	<0.0001	2.9
RSEM-R6W-EOP	1/10/2024 11:30	CHO389	<0.001	<0.0002	0.00086	<0.005	<0.0002	0.0113	5.68	<0.001	<0.0000019	0.0119	<0.001	<0.01	4.57	0.00055	2.96	<0.00002	41.9	0.131	9.8	<0.00001	<0.005	<0.005	0.00052	<0.005	0.0061	<0.0001	2.6
RSEM-R6W-EOP	1/10/2024 11:30	CHO390	<0.001	<0.0002	0.00108	<0.005	<0.0002	0.01	6.11	0.0011	<0.0000019	0.0123	<0.001	<0.01	4.35	0.00062	3.07	<0.00002	47.2	0.128	10.7	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0074	<0.0001	2.7
RSEM-R6W-EOP	1/11/2024 11:15	CHP223	<0.001	<0.0002	0.0011	<0.005	<0.0002	0.0106	6.28	0.0051	<0.0000019	0.0124	<0.001	<0.01	4.29	0.00061	3.19	<0.00002	45.3	0.128	9.9	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0084	<0.0001	3.8
RSEM-R6W-EOP	1/12/2024 10:30	CHP220	<0.001	<0.0002	0.0011	<0.005	<0.0002	0.0107	6.21	0.0045	<0.0000019	0.0127	<0.001	0.011	4.16	0.00066	3.21	<0.00002	46.2	0.129	10.1	<0.00001	<0.005	<0.005	0.00058	<0.005	0.0063	<0.0001	3.9
RSEM-R6W-EOP	1/13/2024 11:30	CHQ989	<0.001	<0.0002	0.00109	<0.005	<0.0002	0.0107	6.32	0.0048	<0.0000019	0.0125	<0.001	<0.01	3.97	0.00065	3.23	<0.00002	47.3	0.129	10.0	<0.00001	<0.005	<0.005	0.00058	<0.005	0.0057	<0.0001	3.8
RSEM-R6W-EOP	1/14/2024 13:00	CHQ993	<0.001	<0.0002	0.00116	<0.005	<0.0002	0.0107	6.36	0.0048	0.0000029	0.0127	<0.001	0.01	3.76	0.00065	3.28	<0.00002	48.1	0.131	10.2	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	3.9
RSEM-R6W-EOP	1/15/2024 13:00	CHR959	<0.001	<0.0002	0.001	<0.005	<0.0002	0.0106	5.74	0.0046	<0.0000019	0.0125	<0.001	<0.01	3.40	0.00063	3.25	<0.00002	47.9	0.118	9.9	0.000011	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	4.4
RSEM-R6W-EOP	1/16/2024 11:45	CHT492	<0.001	<0.0002	0.00112	<0.005	<0.0002	0.011	5.91	0.0037	<0.0000019	0.0128	<0.001	<0.01	3.42	0.00062	3.35	<0.00002	46.2	0.123	9.6	<0.00001	<0.005	<0.005	0.0005	<0.005	0.007	<0.0001	4.8
RSEM-R6W-EOP	1/17/2024 12:30	CHU411	<0.001	<0.0002	0.00113	<0.005	<0.0002	0.0106	5.96	0.0049	<0.0000019	0.0129	<0.001	<0.01	3.46	0.00061	3.51	<0.00002	47.8	0.124	9.2	<0.00001	<0.005	<0.005	0.0005	<0.005	0.0054	<0.0001	5.5
RSEM-R6W-EOP	1/18/2024 12:30	CHV452	<0.001	<0.0002	0.00117	<0.005	<0.0002	0.0109	6.16	0.0055	<0.0000019	0.0132	<0.001	<0.01	3.56	0.00066	3.65	<0.00002	48.4	0.129	9.8	<0.00001	<0.005	<0.005	0.00051	<0.005	0.0071	<0.0001	5.4
RSEM-R6W-EOP	1/19/2024 10:30	CHV453	<0.001	<0.0002	0.00114	<0.005	<0.0002	0.0108	6.01	0.0063	<0.0000019	0.0127	<0.001	<0.01	3.56	0.00064	3.62	<0.00002	47.1	0.128	9.4	<0.00001	<0.005	<0.005	0.0005	<0.005	0.0081	<0.0001	6.7
RSEM-R6W-EOP	1/19/2024 10:30	CHV454	<0.001	<0.0002	0.00117	<0.005	<0.0002	0.0112	6.18	0.0065	0.0000032	0.013	<0.001	<0.01	3.63	0.00064	3.73	<0.00002	48.2	0.131	9.5	<0.00001	<0.005	<0.005	0.00052	<0.005	0.008	<0.0001	6.1
RSEM-R6W-EOP	1/20/2024 10:40	CHX469	<0.001	<0.0002	0.00113	<0.005	<0.0002	0.0104	6.11	0.0059	<0.0000019	0.0108	<0.001	<0.01	3.82	0.00064	3.28	<0.00002	40.0	0.126	8.6	<0.00001	<0.005	<0.005	0.00055	<0.005	0.0087	<0.0001	6.3
RSEM-R6W-EOP	1/21/2024 12:45	CHX463	<0.001	<0.0002	0.00113	<0.005	<0.0002	0.0092	5.91	0.0054	<0.0000019	0.0103	<0.001	<0.01	3.75	0.00059	3.13	<0.00002	37.1	0.124	7.9	<0.00001	<0.005	<0.005	0.00053	<0.005	0.008	<0.0001	8.0
RSEM-R6W-EOP	1/22/2024 14:00	CHZ272	<0.001	<0.0002	0.00111	<0.005	<0.0002	0.0087	5.73	0.0049	<0.0000019	0.0092	<0.001	<0.01	3.47	0.00055	3	<0.00002	33.8	0.117	7.3	<0.00001	<0.005	<0.005	0.00051	<0.005	0.0067	<0.0001	7.2
RSEM-R6W-EOP	1/23/2024 13:50	CIB305	<0.001	<0.0002	0.00111	<0.005	<0.0002	0.0075	5.76	0.0046	0.0000035	0.0086	<0.001	<0.01	3.12	0.00049	2.94	<0.00002	32.4	0.112	7.2	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	9.1

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	D-Cr	D-Co	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6W-EOP	1/24/2024 18:30	CIC566	<0.001	<0.0002	0.00108	<0.005	<0.0002	0.0072	5.75	0.0046	0.0000056	0.0082	<0.001	<0.01	2.77	0.0005	2.87	<0.00002	30.5	0.109	7.1	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	7.4
RSEM-R6W-EOP	1/25/2024 14:30	CID850	<0.001	<0.0002	0.00096	<0.005	<0.0002	0.0065	5.47	0.0037	0.0000031	0.0075	<0.001	<0.01	2.43	0.00047	2.71	<0.00002	30.2	0.102	5.7	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	5.9
RSEM-R6W-EOP	1/26/2024 11:00	CID849	<0.001	<0.0002	0.00099	<0.005	0.00028	0.0064	5.58	0.0037	0.0000047	0.0072	<0.001	<0.01	2.35	0.00045	2.71	<0.00002	29.6	0.104	5.6	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	6.2
RSEM-R6W-EOP	1/27/2024 12:50	CIG715	<0.001	<0.0002	0.001	<0.005	<0.0002	0.0075	5.57	0.0039	0.0000029	0.0068	<0.001	<0.01	2.31	0.00051	2.89	<0.00002	28.1	0.105	7.4	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	5.4
RSEM-R6W-EOP	1/28/2024 12:45	CIG841	<0.001	<0.0002	0.00101	<0.005	<0.0002	0.0073	5.62	0.0037	0.0000019	0.0068	<0.001	<0.01	2.16	0.00049	2.86	<0.00002	27.7	0.106	7.5	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	5.0
RSEM-R6W-EOP	1/28/2024 12:45	CIG842	<0.001	<0.0002	0.00101	<0.005	<0.0002	0.0075	5.74	0.0038	0.0000042	0.0069	<0.001	<0.01	2.25	0.00049	2.91	<0.00002	28.3	0.11	7.0	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	5.1
RSEM-R6W-EOP	1/29/2024 11:00	CIG695	<0.001	<0.0002	0.00096	<0.005	<0.0002	0.0076	5.78	0.0039	0.0000041	0.0067	<0.001	<0.01	2.12	0.00049	2.82	<0.00002	27.8	0.108	7.3	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	5.3
RSEM-R6W-EOP	1/30/2024 12:20	CIK217	<0.001	<0.0002	0.00078	<0.005	<0.0002	0.0064	5.87	0.0043	0.0000022	0.0066	<0.001	<0.01	2.01	0.00044	2.74	<0.00002	28.8	0.113	8.2	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	4.4
RSEM-R6W-EOP	1/31/2024 13:00	CIM176	<0.001	<0.0002	0.00083	<0.005	<0.0002	0.0058	5.65	0.0054	<0.0000019	0.0068	<0.001	<0.01	2.16	0.00043	2.57	<0.00002	27.2	0.113	9.0	<0.00001	<0.005	<0.005	0.00054	<0.005	0.0103	<0.0001	14
RSEM-R6W-EOP	2/1/2024 13:45	CIO169	<0.001	<0.0002	0.00073	<0.005	<0.0002	0.0057	5.06	0.0042	0.0000039	0.0066	<0.001	<0.01	1.90	0.00042	2.51	<0.00002	23.6	0.1	8.2	<0.00001	<0.005	<0.005	0.00052	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	2/1/2024 13:55	CIO170	<0.001	<0.0002	0.00076	<0.005	<0.0002	0.0057	5.16	0.0045	0.0000059	0.0067	<0.001	<0.01	2.01	0.00046	2.53	<0.00002	25.0	0.103	8.4	<0.00001	<0.005	<0.005	0.00053	<0.005	0.0056	<0.0001	11
RSEM-R6W-EOP	2/2/2024 11:45	CIO173	<0.001	<0.0002	0.00084	<0.005	<0.0002	0.0058	5.40	0.0039	0.0000028	0.0067	<0.001	<0.01	1.97	0.00043	2.55	<0.00002	24.7	0.107	8.8	<0.00001	<0.005	<0.005	0.00053	<0.005	0.0051	<0.0001	11
RSEM-R6W-EOP	2/3/2024 13:05	CIS948	<0.001	<0.0002	0.00086	<0.005	<0.0002	0.0069	5.52	0.0037	<0.0000019	0.0072	<0.001	<0.01	1.68	0.00043	2.57	<0.00002	24.2	0.102	7.7	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	8.4
RSEM-R6W-EOP	2/3/2024 13:15	CIS949	<0.001	<0.0002	0.00095	<0.005	<0.0002	0.0069	6.07	0.0037	<0.0000019	0.0071	<0.001	<0.01	1.82	0.00045	2.68	<0.00002	26.3	0.115	8.6	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	7.2
RSEM-R6W-EOP	2/4/2024 13:55	CIQ708	<0.001	<0.0002	0.00087	<0.005	<0.0002	0.0066	5.68	0.003	<0.0000019	0.0071	<0.001	<0.01	1.59	0.00045	2.51	<0.00002	23.5	0.104	8.1	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	8.7
RSEM-R6W-EOP	2/5/2024 10:25	CIQ698	<0.001	<0.0002	0.00079	<0.005	<0.0002	0.0068	5.43	0.0034	<0.0000019	0.0071	<0.001	<0.01	1.41	0.00045	2.46	<0.00002	22.2	0.0986	7.7	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	8.8
RSEM-R6W-EOP	2/6/2024 13:40	CIV114	<0.001	0.00023	0.00089	<0.005	<0.0002	0.0062	6.13	0.0048	0.0000051	0.0073	0.0015	<0.01	1.60	0.00048	2.25	<0.00002	24.6	0.113	9.8	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	8.1
RSEM-R6W-EOP	2/7/2024 12:45	CIW695	<0.001	0.00026	0.00084	<0.005	<0.0002	0.0064	6.51	0.0055	0.0000027	0.0071	0.0016	<0.01	1.57	0.00048	2.36	<0.00002	25.1	0.116	10.0	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	8.7
RSEM-R6W-EOP	2/8/2024 14:30	CIY459	<0.001	0.00022	0.00082	<0.005	<0.0002	0.0065	7.15	0.0047	<0.0000019	0.0071	0.0014	<0.01	1.59	0.00045	2.53	<0.00002	26.0	0.125	10.6	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	7.3
RSEM-R6W-EOP	2/9/2024 10:45	CIY470	<0.001	<0.0002	0.00078	<0.005	<0.0002	0.0063	6.80	0.0037	<0.0000019	0.0068	0.0013	<0.01	1.53	0.00045	2.55	<0.00002	24.7	0.121	9.3	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	6.1
RSEM-R6W-EOP	2/10/2024 8:45	CJA995	<0.001	<0.0002	0.0008	<0.005	<0.0002	0.0061	6.92	0.0031	<0.0000019	0.0071	0.0012	<0.01	1.54	0.00049	2.66	<0.00002	24.6	0.128	9.7	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	4.8
RSEM-R6W-EOP	2/11/2024 13:30	CJA989	<0.001	<0.0002	0.00075	<0.005	<0.0002	0.0059	6.77	0.0025	<0.0000019	0.007	0.001	<0.01	1.53	0.00047	2.74	<0.00002	24.1	0.125	9.4	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0099	<0.0001	4.3
RSEM-R6W-EOP	2/11/2024 13:30	CJA990	<0.001	<0.0002	0.00074	<0.005	<0.0002	0.0059	6.74	0.0025	<0.0000019	0.0071	0.0011	<0.01	1.53	0.00045	2.74	<0.00002	23.9	0.126	9.0	<0.00001	<0.005	<0.005	0.00057	<0.005	0.0073	<0.0001	5.0
RSEM-R6W-EOP	2/12/2024 11:20	CJD166	<0.001	<0.0002	0.00075	<0.005	<0.0002	0.0053	5.66	0.0019	<0.0000019	0.0071	<0.001	<0.01	1.47	0.00046	2.65	<0.00002	22.0	0.121	7.5	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	4.4
RSEM-R6W-EOP	2/13/2024 12:50	CJF529	<0.001	<0.0002	0.00078	<0.005	<0.0002	0.0054	5.68	0.0017	<0.0000019	0.0069	<0.001	<0.01	1.44	0.00046	2.68	<0.00002	21.8	0.12	7.5	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	6.5
RSEM-R6W-EOP	2/14/2024 12:30	CJH435	<0.001	<0.0002	0.00069	<0.005	<0.0002	0.0053	5.60	0.0012	<0.0000019	0.0069	<0.001	<0.01	1.41	0.00045	2.67	<0.00002	21.3	0.118	7.6	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	7.0
RSEM-R6W-EOP	2/15/2024 14:00	CJJ555	<0.001	<0.0002	0.0007	<0.005	<0.0002	0.0053	6.96	<0.001	<0.0000019	0.007	<0.001	<0.01	1.53	0.00047	2.65	<0.00002	23.0	0.127	7.4	<0.00001	<0.005	<0.005	0.00061	<0.005	<0.005	<0.0001	7.8
RSEM-R6W-EOP	2/16/2024 10:30	CJJ650	<0.001	<0.0002	0.00071	<0.005	<0.0002	0.0053	6.99	<0.001	<0.0000019	0.007	<0.001	<0.01	1.51	0.0004	2.66	<0.00002	22.8	0.126	7.4	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	8.9
RSEM-R6W-EOP	2/17/2024 13:15	CJM213	<0.001	<0.0002	0.00081	<0.005	<0.0002	0.0051	7.03	<0.001	<0.0000019	0.0069	<0.001	<0.01	1.44	0.0005	2.74	<0.00002	22.9	0.129	6.8	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	8.7
RSEM-R6W-EOP	2/18/2024 12:15	CJM243	<0.001	<0.0002	0.00073	<0.005	<0.0002	0.0051	7.00	<0.001	<0.0000019	0.0068	<0.001	<0.01	1.45	0.00047	2.74	<0.00002	22.3	0.13	6.7	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	<0.0001	8.4
RSEM-R6W-EOP	2/19/2024 10:30	CJL996	<0.001	<0.0002	0.00075	<0.005	<0.0002	0.005	7.09	0.001	<0.0000019	0.0067	<0.001	<0.01	1.47	0.00045	2.7	<0.00002	22.7	0.131	6.4	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	8.6
RSEM-R6W-EOP	2/19/2024 10:30	CJL997	<0.001	<0.0002	0.00075	<0.005	<0.0002	0.005	7.15	<0.001	<0.0000019	0.0067	<0.001	<0.01	1.47	0.00046	2.72	<0.00002	22.7	0.132	6.5	<0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001	9.3
RSEM-R6W-EOP	2/20/2024 10:00	CJO638	<0.001	<0.0002	0.00081	<0.005	<0.0002	0.0048	6.66	0.0013	<0.0000019	0.0063	<0.001	<0.01	1.31	0.00048	2.75	<0.00002	21.1	0.122	7.2	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	5.8
RSEM-R6W-EOP	2/21/2024 17:00	CJQ215	<0.001	<0.0002	0.00074	<0.005	<0.0002	0.0051	6.42	<0.001	<0.0000019	0.0056	<0.001	<0.01	1.35	0.00044	2.7	<0.00002	20.7	0.109	7.2	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	7.3
RSEM-R6W-EOP	2/22/2024 12:10	CJR705	<0.001	<0.0002	0.00072	<0.005	<0.0002	0.0051	6.29	<0.001	<0.0000019	0.0054	<0.001	<0.01	1.34	0.00044	2.65	<0.00002	20.2	0.106	7.2	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	9.2
RSEM-R6W-EOP	2/22/2024 12:20	CJR706	<0.001	<0.0002	0.00074	<0.005	<0.0002	0.0052	6.40	<0.001	<0.0000019	0.0055	<0.001	<0.01	1.36	0.00043	2.7	<0.00002	20.6	0.109	6.7	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	8.2
RSEM-R6W-EOP	2/23/2024 12:45	CJR710	<0.001	<0.0002	0.00075	<0.005	<0.0002	0.0051	6.28	0.0022	<0.0000019	0.0053	<0.001	<0.01	1.36	0.00043	2.66	<0.00002	20.1	0.107	6.9	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	16
RSEM-R6W-EOP	2/24/2024 12:45	CJV373	<0.001	<0.0002	0.00073	<0.005	<0.0002	0.005	6.11	0.0047	<0.0000019	0.0053	<0.001	<0.01	1.32	0.00042	2.55	<0.00002	19.6	0.106	6.6	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	31
RSEM-R6W-EOP	2/25/2024 13:50	CJV301	<0.001	<0.0002	0.00071	<0.005	<0.0002	0.005	5.99	0.0031	<0.0000019	0.0053	<0.001	<0.01	1.25	0.00039	2.48	<0.00002	19.4	0.102	6.1	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	17
RSEM-R6W-EOP	2/26/2024 12:10	CJV275	<0.001	<0.0002	0.0007	<0.005	<0.0002	0.0051	6.04	0.0023	<0.0000019	0.0054	<0.001	<0.01	1.24	0.0004	2.51	<0.00002	19.4	0.102	6.6	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	15
RSEM-R6W-EOP	2/27/2024 14:20	CJY638	<0.001	<0.0002	0.00073	<0.005	<0.0002	0.0045	6.34	0.0016	<0.0000019	0.0062	<0.001	<0.01	1.29	0.00044	2.35	<0.00002	21.3	0.112	6.7	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	7.4
RSEM-R6W-EOP	3/1/2024 11:30	CKD812	<0.001	<0.0002	0.00078	<0.005	<0.0002	0.0045	6.60	0.0021	<0.0000019	0.0064	<0.001	<0.01	1.27	0.00042	2.4	<0.00002	21.3	0.117	6.9	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	9.2
RSEM-R6W-EOP	3/4/2024 12:45	CKH347	<0.001	<0.0002	0.00079	<0.005	<0.0002	0.0055	5.98	0.0032	<0.0000019	0.0059	<0.001	<0.01	1.35	0.00039	2.39	<0.00002	20.6	0.121	7.7	<0.00001	<0.005	<0.005	0.00057	<0.005	0.006	<0.0001	10
RSEM-R6W-EOP	3/7/2024 9:10	CKM296	<0.001	<0.0002	0.00088	0.0062	<0.0002	0.0052	6.89	0.0034	<0.0000019	0.0059	<0.001	<0.01	1.46	0.0004	2.41	<0.00002	23.0	0.118	8.6	<0.00001	<0.005	<0.005	0.00058	<0.005	<0.005	<0.0001	12
RSEM-R6W-EOP	3/10/2024 9:30	CKP223	<0.001	<0.0002	0.00088	<0.005	<0.0002	0.005	6.45	0.0033	<0.0000019	0.0054	<0.001	<0.01	1.37	0.00041	2.45	<0.00002	21.6	0.112	7.5	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	16
RSEM-R6W-EOP	3/13/2024 12:20	CKU761	<0.001	<0.0002	0.00291	<0.005	<0.0002	0.0068	6.28	0.0122	<0.0000019	0.0063	0.0011	<0.01	2.54	0.00045	2.38	<0.00002	21.1	0.149	11.6	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	15
RSEM-R6W-EOP	3/14/2024 13:30	CKW691	<0.001	<0.0002	0.00732	0.0071	<0.0002	0.0036	3.63	0.0127	<0.0000019	0.0038	<0.001	<0.01	1.63	0.00021	1.29	<0.00002	13.4	0.0909	7.3	<0.00001	<0.005	<0.005	0.00035	<0.005	0.0129	<0.0001	21
RSEM-R6W-EOP	3/17/2024 13:05	CKY637	0.0011	0.00046	0.00075	<0.005	<0.0002	0.0081	6.30	0.0222	<0.0000019	0.0087	0.0021	<0.01	2.36	0.00054	3.22	<0.00002	25.0	0.149	15.6	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	21
RSEM-R6W-EOP	3/18/2024 11:20	CKY613	0.001	0.00027	0.00073	<0.005	<0.0002	0.0077	6.23	0.0173	<0.0000019	0.0089	0.0017	<0.01	2.23	0.00051	3.21	<0.00002	26.5	0.144	14.3	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001	15
RSEM-R6W-EOP	3/20/2024 11:10	CLD624	<0.001	<0.0002	0.00064	<0.005	<0.0002	0.0066	5.94	0.0094	<0.0000019	0.008	0.0011	<0.01	1.89	0.00065	2.84	<0.00002	25.3	0.126	14.5	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	3/23/2024 12:45	CLG612	<0.001	0.00026	0.00073	<0.005	<0.0002	0.0089	7.18	0.0065	<0.0000019	0.0088	0.0036	<0.01	2.17	0.00067	3.04	<0.00002	22.0	0.146	20.8	<0.00001	<0.005	<0.005	0.00073	<0.005	<0.005	<0.0001	8.2
RSEM-R6W-EOP	3/26/2024 11:00	CLK396	<0.001	0.00052	0.00066	<0.005	<0.0002	0.0103	8.18	0.0111	<0.0000019	0.0088	0.0055	<0.01	2.24	0.00062	2.87	<0.00002	21.7	0.153	22.3	<0.00001	<0.005	<0.005	0.00075	<0.005	0.0065	<0.0001	6.3
RSEM-R6W-EOP	3/29/2024 11:45	CLN878	<0.001	0.0003	0.0006	<0.005	<0.0002	0.0079	7.13	0.0062	<0.0000019	0.0083	0.0031	<0.01	1.70	0.0005	2.52	<0.00002	22.0	0.114	14.4	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	5.9
RSEM-R6W-EOP	4/1/2024 14:00	CLP411	<0.001	<0.0002	0.00058	<0.005	<0.0002	0.0061	5.80	0.0041	<0.0000019	0.0074	0.0015	<0.01	1.35	0.0004	2.43	<0.00002	20.9	0.0913	10.1	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	9.9

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	D-Cr	D-Co	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
RSEM-R6W-EOP	4/4/2024 11:30	CLU068	<0.001	<0.0002	0.00059	<0.005	<0.0002	0.0054	5.85	0.0038	<0.0000019	0.0076	0.0011	<0.01	1.27	0.00042	2.17	<0.00002	23.1	0.0922	9.1	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	12
RSEM-R6W-EOP	4/4/2024 11:30	CLU069	<0.001	<0.0002	0.00059	<0.005	<0.0002	0.0053	5.82	0.0035	<0.0000019	0.0077	0.0012	<0.01	1.27	0.00044	2.16	<0.00002	23.2	0.0927	9.6	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	4/7/2024 14:15	CLV772	<0.001	<0.0002	0.0006	<0.005	<0.0002	0.006	6.03	0.0069	<0.0000019	0.007	0.0014	<0.01	1.38	0.00049	2.07	<0.00002	20.3	0.0988	11.7	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	13
RSEM-R6W-EOP	4/10/2024 12:30	CMA568	<0.001	<0.0002	0.00061	<0.005	<0.0002	0.0047	6.06	0.0028	<0.0000019	0.0073	<0.001	<0.01	1.19	0.00039	1.73	<0.00002	23.3	0.091	8.4	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	10
RSEM-R6W-EOP	4/13/2024 9:30	CMD320	<0.001	<0.0002	0.00058	<0.005	<0.0002	0.0044	5.88	0.0024	<0.0000019	0.0075	<0.001	<0.01	1.10	0.00045	1.73	<0.00002	24.0	0.0948	7.1	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	11
RSEM-R6W-EOP	4/16/2024 13:30	CMF985	<0.001	<0.0002	0.00069	<0.005	<0.0002	0.0052	5.74	<0.001	<0.0000019	0.0077	<0.001	<0.01	1.17	0.00046	2.11	<0.00002	22.4	0.101	7.8	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	8.6
RSEM-R6W-EOP	4/16/2024 13:30	CMF986	<0.001	<0.0002	0.00068	<0.005	<0.0002	0.0052	5.82	<0.001	<0.0000019	0.0076	<0.001	<0.01	1.15	0.00044	2.07	<0.00002	22.7	0.1	7.3	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	8.4
RSEM-R6W-EOP	4/19/2024 11:00	CMJ300	<0.001	<0.0002	0.00058	<0.005	<0.0002	0.0059	6.16	<0.001	<0.0000019	0.0069	<0.001	<0.01	1.18	0.00051	2.02	<0.00002	25.6	0.101	8.6	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	8.7
RSEM-R6W-SP	3/24/2024 11:00	CLG644	<0.001	<0.0002	0.00166	0.0094	<0.0002	<0.002	0.727	0.0087	<0.0000019	<0.001	<0.001	0.01	0.685	0.00011	0.386	<0.00002	5.10	0.0213	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0234	<0.0001	5.6
RSEM-R6W-SP	3/24/2024 11:00	CLG645	<0.001	<0.0002	0.00165	0.0089	<0.0002	<0.002	0.709	0.0086	<0.0000019	<0.001	<0.001	0.011	0.671	<0.0001	0.353	<0.00002	5.04	0.0208	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0237	<0.0001	5.2
RSEM-R6-EP-US-SD	3/17/2024 14:40	CKY640	<0.005	0.316	0.215	5.61	<0.001	0.22	89.7	3.64	<0.0000019	<0.005	0.923	<0.05	5.15	0.00526	3.09	<0.0001	29.3	0.665	333	<0.00005	<0.025	<0.025	0.013	<0.025	3.01	<0.0005	460
RSEM-R6-EP-US-SD	3/31/2024 14:50	CLN879	<0.001	0.0101	0.00079	0.0251	<0.0002	0.0434	21.7	0.49	<0.0000019	<0.001	0.02	<0.01	1.47	0.00096	0.782	<0.00002	19.0	0.215	67.9	0.000012	<0.005	<0.005	0.00111	<0.005	0.0081	<0.0001	1100
WP-SP	4/6/2024 14:20	CLV795	<0.001	0.00029	<0.0002	<0.005	<0.0002	0.0043	9.40	0.0152	<0.0000019	0.0141	0.0023	<0.01	3.17	0.00183	1.63	<0.00002	1.65	3.15	48.6	0.000011	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	280
Area_A_N_Ditch	3/25/2024 14:30	CLI203	<0.001	<0.0002	0.00022	0.0064	<0.0002	0.0034	10.8	0.0171	<0.0000019	0.0021	<0.001	<0.01	1.51	0.00074	2.42	<0.00002	3.76	0.117	16.8	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001	23
Area_A_N_Ditch	6/16/2024 13:00	CPO245	<0.001	<0.0002	0.00046	0.0376	<0.0002	0.0055	13.9	0.0272	<0.0000019	0.0028	<0.001	<0.01	2.32	0.00044	3.18	<0.00002	5.80	0.151	20.4	<0.00001	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0001	35
AK_Pond	1/4/2024 12:35	CHJ029	<0.001	<0.0002	0.00101	<0.005	<0.0002	0.0088	5.49	<0.001	<0.0000019	0.0104	<0.001	<0.01	4.04	0.00056	3.01	<0.00002	36.5	0.105	8.6	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	2.6
AK_Pond	1/11/2024 12:00	CHP222	<0.001	<0.0002	0.00142	0.0068	<0.0002	0.0099	5.41	<0.001	<0.0000019	0.0116	0.0015	0.015	2.28	0.00062	3.12	<0.00002	43.3	0.107	8.4	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	16
AK_Pond	1/19/2024 11:20	CHV456	<0.001	<0.0002	0.00104	<0.005	<0.0002	0.0074	5.33	<0.001	0.0000035	0.0084	<0.001	<0.01	2.79	0.00051	2.9	<0.00002	30.4	0.108	7.0	<0.00001	<0.005	<0.005	0.00044	<0.005	<0.005	<0.0001	23
AK_Pond	1/25/2024 15:00	CID851	<0.001	<0.0002	0.0009	<0.005	<0.0002	0.0056	5.60	<0.001	0.0000026	0.0065	<0.001	<0.01	1.58	0.00042	2.65	<0.00002	25.6	0.0976	5.4	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	<0.0001	6.7
AK_Pond	1/30/2024 13:25	CIK220	<0.001	<0.0002	0.00083	0.005	<0.0002	0.0059	6.50	0.0018	<0.0000019	0.0067	0.0017	<0.01	1.87	0.00049	2.56	<0.00002	26.4	0.117	8.3	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	24
AK_Pond	2/9/2024 11:30	CIY471	<0.001	<0.0002	0.00088	<0.005	<0.0002	0.0057	6.47	<0.001	<0.0000019	0.0071	0.0015	<0.01	1.61	0.00061	3.16	<0.00002	22.5	0.13	8.9	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001	76
AK_Pond	2/17/2024 13:30	CJM214	<0.001	<0.0002	0.00075	<0.005	<0.0002	0.005	6.74	0.0013	<0.0000019	0.0058	0.0014	<0.01	1.37	0.00046	2.64	<0.00002	21.2	0.123	6.3	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	23
AK_Pond	2/22/2024 12:50	CJR708	<0.001	<0.0002	0.00072	<0.005	<0.0002	0.0047	5.88	<0.001	<0.0000019	0.0051	0.0011	<0.01	1.05	0.0004	2.56	<0.00002	18.6	0.0965	5.7	<0.00001	<0.005	<0.005	0.00052	<0.005	<0.005	<0.0001	6.9
AK_Pond	3/1/2024 10:45	CKD813	<0.001	<0.0002	0.00074	<0.005	<0.0002	0.0046	6.49	0.0015	<0.0000019	0.0054	0.0016	<0.01	1.12	0.00041	2.43	<0.00002	21.8	0.109	6.1	<0.00001	<0.005	<0.005	0.00056	<0.005	<0.005	<0.0001	30
AK_Pond	3/6/2024 13:15	CKK595	<0.001	<0.0002	0.00086	<0.005	<0.0002	0.0051	6.01	0.0022	<0.0000019	0.0047	0.002	<0.01	1.16	0.00048	2.46	<0.00002	17.5	0.114	7.4	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	26
AK_Pond	3/6/2024 13:15	CKK596	<0.001	<0.0002	0.00089	<0.005	<0.0002	0.0052	6.08	<0.001	<0.0000019	0.0048	0.0013	<0.01	1.16	0.00045	2.5	<0.00002	17.6	0.115	7.5	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	26
AK_Pond	3/13/2024 13:15	CKU763	0.0026	<0.0002	0.00087	<0.005	<0.0002	0.0072	4.75	<0.001	<0.0000019	0.0091	<0.001	<0.01	1.64	0.00062	4.94	<0.00002	24.6	0.098	8.8	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	120
AK_Pond	3/20/2024 11:30	CLD625	<0.001	0.00041	0.00086	<0.005	<0.0002	0.0096	7.54	0.0241	<0.0000019	0.0089	0.0051	<0.01	2.13	0.00065	2.77	<0.00002	25.2	0.156	19.0	<0.00001	<0.005	<0.005	0.00071	<0.005	<0.005	<0.0001	28
AK_Pond	3/31/2024 13:15	CLN880	<0.001	<0.0002	0.00078	<0.005	<0.0002	0.0055	5.40	<0.001	<0.0000019	0.0075	0.0012	<0.01	1.03	0.00048	2.7	<0.00002	22.3	0.101	7.3	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	27
AK_Pond	4/4/2024 12:20	CLU071	<0.001	<0.0002	0.00114	<0.005	<0.0002	0.0058	5.73	<0.001	<0.0000019	0.0083	<0.001	<0.01	1.18	0.00046	2.41	<0.00002	27.7	0.104	8.0	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001	76
AK_Pond	4/10/2024 13:45	CMA570	<0.001	<0.0002	0.00074	<0.005	<0.0002	0.0048	6.27	<0.001	<0.0000019	0.0083	0.0013	<0.01	0.922	0.00048	2.07	<0.00002	25.9	0.103	7.1	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	6.3
AK_Pond	4/19/2024 11:30	CMJ299	<0.001	<0.0002	0.00091	<0.005	<0.0002	0.0061	6.20	<0.001	<0.0000019	0.0066	0.0014	<0.01	1.34	0.00042	2.81	<0.00002	25.6	0.0997	8.6	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	23
Area_30_EOP	1/30/2024 14:50	CIK221	<0.005	<0.001	0.0011	<0.025	<0.001	<0.01	24.7	0.0472	0.0000043	<0.005	<0.005	<0.05	3.48	0.00092	1.07	<0.0001	3.29	2.19	151	<0.00005	<0.025	<0.025	0.00231	<0.025	<0.025	<0.0005	14
Area_30_EOP	3/16/2024 14:15	CKY601	<0.005	<0.001	0.0011	<0.025	<0.001	<0.01	32.4	0.0882	<0.0000019	<0.005	<0.005	<0.05	3.07	0.00113	1.48	<0.0001	5.53	1.92	133	<0.00005	<0.025	<0.025	0.0035	<0.025	<0.025	<0.0005	2.9
Area_30_EOP	3/16/2024 14:25	CKY602	<0.001	0.00029	0.00109	0.0059	<0.0002	0.0074	30.7	0.0926	<0.0000019	0.0047	0.0022	<0.01	3.20	0.00132	1.47	<0.00002	5.21	2	132	<0.00001	<0.005	<0.005	0.00365	<0.005	0.0166	<0.0001	3.7
Area_30_EOP	5/2/2024 13:45	CNB011	<0.005	<0.001	0.0011	<0.025	<0.001	0.014	79.4	0.0085	<0.0000019	0.0081	<0.005	<0.05	4.73	0.00368	2.07	<0.0001	10.6	5.06	309	<0.00005	<0.025	<0.025	0.00617	<0.025	0.048	<0.0005	3.2
L3-DC-DS	3/15/2024 10:45	CKW726																											22
L3-DC-DS	6/16/2024 9:00	CPO240																											
L3-DC-DS	6/24/2024 12:30	CQB494																											
L3-DC-US	3/15/2024 10:40	CKW725																											15
L3-DC-US	6/16/2024 8:45	CPO239																											
L3-DC-US	6/24/2024 12:45	CQB495																											
RSEM-L6-SP	3/18/2024 10:30	CKY612	<0.001	0.00035	0.00181	0.0063	<0.0002	0.006	8.92	0.0453	<0.0000019	0.0061	0.0018	<0.01	3.28	0.00093	1.34	<0.00002	17.0	0.177	27.1	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	16
RSEM-L6-SP	4/5/2024 11:35	CLU073	<0.001	<0.0002	0.0007	<0.005	<0.0002	0.0032	4.43	0.0035	<0.0000019	0.0034	<0.001	<0.01	1.41	0.00041	0.921	<0.00002	9.26	0.0848	13.5	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	3.5
RSEM-L6-SP	4/10/2024 12:00	CMA569	<0.001	<0.0002	0.00111	<0.005	<0.0002	0.0093	15.9	0.002	<0.0000019	0.008	0.002	<0.01	3.21	0.0009	0.96	<0.00002	37.0	0.253	49.8	<0.00001	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001	3.1
MWTF-SLP-R6	1/7/2024 12:55	CHK448	<0.001	<0.0002	0.00085	<0.005	<0.0002	0.0087	5.61	0.0011	<0.0000019	0.0103	<0.001	<0.01	3.60	0.00057	3.22	<0.00002	37.7	0.108	8.0	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	3.5
MWTF-SLP-R6	1/13/2024 13:30	CHQ988	<0.001	<0.0002	0.00129	<0.005	<0.0002	0.0098	5.83	<0.001	<0.0000019	0.0115	<0.001	<0.01	2.98	0.00065	3.15	<0.00002	45.0	0.122	8.9	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001	7.6
MWTF-SLP-R6	1/22/2024 14:40	CHZ273	<0.001	<0.0002	0.00104	<0.005	<0.0002	0.0071	5.62	<0.001	<0.0000019	0.0074	<0.001	<0.01	2.52	0.00052	2.8	<0.00002	26.8	0.108	6.7	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	8.2
MWTF-SLP-R6	1/28/2024 13:40	CIG844	<0.001	<0.0002	0.00096	<0.005	<0.0002	0.0072	5.65	0.0012	0.0000023	0.0061	<0.001	<0.01	1.90	0.00054	2.82	<0.00002	26.3	0.1	7.1	<0.00001	<0.005	<0.005	0.00047	<0.005	<0.005	<0.0001	4.6
MWTF-SLP-R6	1/30/2024 13:00	CIK219	<0.001	<0.0002	0.00094	<0.005	<0.0002	0.0063	6.14	0.0019	0.0000047	0.0065	<0.001	<0.01	2.00	0.00048	2.63	<0.00002	27.5	0.112	9.0	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001	6.9
MWTF-SLP-R6	2/8/2024 15:30	CIY460	<0.001	<0.0002	0.00067	<0.005	<0.0002	0.0056	6.25	0.0015	<0.0000019	0.0069	<0.001	<0.01	1.52	0.00054	3	<0.00002	22.7	0.124	8.3	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	7.1
MWTF-SLP-R6	2/15/2024 12:40	CJJ556	<0.001	<0.0002	0.00074	<0.005	<0.0002	0.0051	6.89	<0.001	<0.0000019	0.0067	<0.001	<0.01	1.45	0.00048	2.59	<0.00002	22.0	0.124	6.8	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001	11
MWTF-SLP-R6	2/22/2024 13:30	CJR709	<0.001	<0.0002	0.00066	<0.005	<0.0002	0.0049	6.20	<0.001	<0.0000019	0.0053	<0.001	<0.01	1.25	0.00047	2.61	<0.00002	20.1	0.103	6.8	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001	9.9
MWTF-SLP-R6	3/4/2024 13:15	CKH348	<0.001	<0.0002	0.00083	<0.005	<0.0002	0.0052	6.11	0.0011	<0.0000019	0.0055	<0.001	<0.01	1.31	0.00041	2.38	<0.00002	20.0	0.121	7.4	<0.00001	<0.005	<0.005	0.00059	<0.005	<0.005	<0.0001	16

Appendix 3-C 2024 Analytical Sample and Field Duplicate Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	D-Cr	D-Co	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr	Turbidity-lab
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU
MWTF-SLP-R6	3/10/2024 10:20	CKP224	<0.001	<0.0002	0.00089	<0.005	<0.0002	0.0051	6.28	0.0014	<0.0000019	0.0055	<0.001	<0.01	1.40	0.00044	2.79	<0.00002	21.6	0.112	7.9	<0.00001	<0.005	<0.005	0.00054	<0.005	<0.005	<0.0001	13
MWTF-SLP-R6	3/13/2024 12:55	CKU762	<0.001	<0.0002	0.0009	<0.005	<0.0002	0.0062	5.98	0.0037	<0.0000019	0.0074	<0.001	<0.01	1.54	0.00059	2.73	<0.00002	22.3	0.123	9.4	<0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001	21
MWTF-SLP-R6	3/20/2024 12:00	CLD626	<0.001	0.00038	0.00085	<0.005	<0.0002	0.0094	7.35	0.008	<0.0000019	0.0088	0.0039	<0.01	2.28	0.00069	3.02	<0.00002	26.3	0.145	21.4	<0.00001	<0.005	<0.005	0.00076	<0.005	<0.005	<0.0001	18
MWTF-SLP-R6	3/31/2024 14:00	CLN881	<0.001	<0.0002	0.00061	<0.005	<0.0002	0.0055	5.50	0.001	<0.0000019	0.0076	<0.001	<0.01	1.15	0.00046	2.63	<0.00002	21.9	0.085	7.2	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	13
MWTF-SLP-R6	4/4/2024 14:00	CLU072	<0.001	<0.0002	0.00076	<0.005	<0.0002	0.0071	7.11	0.0015	<0.0000019	0.0081	0.0012	<0.01	1.49	0.00049	2.33	<0.00002	24.4	0.108	13.1	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001	13
MWTF-SLP-R6	4/13/2024 8:50	CMD321	<0.001	<0.0002	0.00072	<0.005	<0.0002	0.0047	6.27	<0.001	<0.0000019	0.0083	<0.001	<0.01	0.987	0.00047	1.94	<0.00002	26.2	0.104	6.6	<0.00001	<0.005	<0.005	0.00049	<0.005	<0.005	<0.0001	9.0
MWTF-SLP-R6	4/19/2024 23:45	CMJ301	<0.001	<0.0002	0.00072	<0.005	<0.0002	0.0061	6.14	<0.001	<0.0000019	0.0069	<0.001	<0.01	1.10	0.00043	2.25	<0.00002	26.1	0.101	8.7	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	<0.0001	12
85-EP	2/1/2024 10:55	CIO172																											11
Area_30_SP	6/2/2024 13:00	COP885	<0.005	<0.001	<0.001	<0.025	<0.001	0.027	142	0.0797	<0.0000019	0.0071	0.0056	<0.05	6.10	0.00129	<0.5	<0.0001	19.5	7.94	577	<0.00005	<0.025	<0.025	0.00795	<0.025	<0.025	<0.0005	12
Area_30_SP	6/2/2024 13:00	COP886	<0.005	<0.001	<0.001	<0.025	<0.001	0.028	153	0.0835	<0.0000019	0.0072	0.0056	<0.05	6.23	0.00119	<0.5	<0.0001	20.5	8.32	632	<0.00005	<0.025	<0.025	0.00837	<0.025	<0.025	<0.0005	13
Area_30_SP	6/16/2024 10:00	CPO241	<0.005	<0.001	<0.001	<0.025	<0.001	<0.01	48.2	0.0061	<0.0000019	0.0091	<0.005	<0.05	3.59	0.00313	1.88	<0.0001	5.89	4.2	222	<0.00005	<0.025	<0.025	0.00341	<0.025	<0.025	<0.0005	4.8
85-IDZ	1/30/2024 16:35	CIK224																											130
85-IDZ	3/15/2024 13:15	CKW729																											120
85-IDZ	5/1/2024 13:20	CMZ165																											
85-IDZ	6/15/2024 16:00	CPO330																											
85-IDZ	6/16/2024 16:45	CPO244																											
85-IDZ	6/17/2024 16:10	CPP867																											
85-IDZ	6/24/2024 15:30	CQB496																											
85-IDZ	6/27/2024 13:45	CQI715																											
L3-W-DC-Sump	3/12/2024 15:30	CKT065																											69
L3-W-DC-Sump	3/15/2024 10:30	CKW724																											26
L3-W-DC-EOP	3/17/2024 15:35	CKY638																											140
L3-W-DC-EOP	5/1/2024 14:40	CMZ167																											
L3-W-DC-EOP	6/16/2024 8:30	CPO238																											
L3-W-DC-EOP	6/24/2024 12:15	CQB493																											
85-EOP	1/30/2024 16:00	CIK222																											90
85-EOP	3/15/2024 12:45	CKW727																											30
85-EOP	3/17/2024 16:30	CKY639																											20
85-EOP	5/1/2024 13:30	CMZ166																											
85-EOP	6/15/2024 16:45	CPO328																											
85-EOP	6/16/2024 16:00	CPO242																											
85-EOP	6/17/2024 16:45	CPP869																											
85-EOP	6/24/2024 16:00	CQB497																											
85-EOP	6/27/2024 13:15	CQI713																											
85-US	1/30/2024 16:25	CIK223																											36
85-US	3/15/2024 13:05	CKW728																											40
85-US	5/1/2024 13:10	CMZ164																											
85-US	6/15/2024 16:30	CPO329																											
85-US	6/16/2024 16:15	CPO243																											
85-US	6/17/2024 16:30	CPP868																											
85-US	6/24/2024 15:45	CQB498																											
85-US	6/27/2024 13:30	CQI714																											
SeptimusBeaverPond_1	5/2/2024 14:20	CNB012	<0.001	<0.0002	<0.0002	0.0892	<0.0002	0.0042	27.2	0.155	<0.0000019	<0.001	<0.001	0.082	7.59	0.00014	2.25	<0.00002	3.72	0.644	33.9	<0.00001	<0.005	<0.005	0.00038	<0.005	<0.005	<0.0001	5.3
SeptimusBeaverPond_4	5/2/2024 15:15	CNB013	<0.001	0.00022	<0.0002	0.0585	<0.0002	0.0038	22.7	0.0117	<0.0000019	<0.001	<0.001	0.074	6.90	<0.0001	1.88	<0.00002	3.33	0.403	9.2	<0.00001	<0.005	<0.005	0.00014	<0.005	<0.005	<0.0001	8.6
SeptimusBeaverPond_6	5/2/2024 15:30	CNB014	<0.001	0.00032	0.00028	0.335	<0.0002	0.004	24.0	0.0736	<0.0000019	0.0015	0.0023	0.039	11.0	<0.0001	1.12	<0.00002	3.77	0.214	33.4	<0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001	21
SeptimusBeaverPond_8	5/2/2024 15:45	CNB015	<0.001	0.00025	<0.0002	0.395	<0.0002	0.0064	57.1	0.0493	<0.0000019	0.0022	0.003	0.06	9.45	0.00021	2.33	<0.00002	7.22	0.958	82.4	<0.00001	<0.005	<0.005	0.00307	<0.005	<0.005	<0.0001	13

Notes: Under Sample Class "M" denotes a monitoring sample and "D" denotes a field duplicate sample. "<" = Result not detected and is below the indicated detection limit. Values are absent from the table if a test result was not reported.

Appendix 3-D: 2024 Analytical Field Blank Water Quality Data

PEACE RIVER
HYDRO PARTNERS

Appendix 3-D: 2024 Analytical Field Blank Water Quality Data

Stn.Code	Collect Date/Time	Sample No.	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4	TOC	DOC
			pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/3/2024 11:00	CHH929	4.70	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	1/10/2024 12:00	CHO391	5.58	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	0.62	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	1/19/2024 10:30	CHV455	5.40	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.018	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	1/28/2024 12:45	CIG843	5.42	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	0.011	0.011	<0.0030	<0.50	<0.50
FIELDBLANK	2/1/2024 14:05	CIO171	5.02	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	0.010	0.010	<0.0030	<0.50	<0.50
FIELDBLANK	2/3/2024 13:25	CIS950	5.02	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	2/11/2024 13:30	CJA991	5.25	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.026	<0.010	<0.050	<0.050	<0.0030	<0.50	<0.50
FIELDBLANK	2/19/2024 10:30	CJL998	5.05	<2.0	<0.10	<10	<0.99	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	0.011	0.011	<0.0030	<0.50	<0.50
FIELDBLANK	2/22/2024 12:30	CJR707	5.22	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.016	<0.010	0.011	0.011	<0.0030	<0.50	<0.50
FIELDBLANK	3/6/2024 13:30	CKK597	6.36	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.9	<1.0	2.4	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	0.024	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	3/16/2024 14:35	CKY603	5.91	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	3/24/2024 10:10	CLG646	5.77	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	4/4/2024 11:30	CLU070	5.72	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	4/16/2024 13:30	CMF987	5.38	<2.0	<0.10	<10	<1.0	<0.50	<0.50	1.6	<1.0	1.9	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	<0.010	<0.010	<0.0030	<0.50	<0.50
FIELDBLANK	6/2/2024 13:15	COP887	6.03	<2.0	<0.10	<10	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.050	<0.010	<1.0	<0.015	<0.010	0.011	0.011	<0.0030	<0.50	<0.50

Stn.Code	Collect Date/Time	Sample No.	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/3/2024 11:00	CHH929	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	1/10/2024 12:00	CHO391	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	1/19/2024 10:30	CHV455	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	1/28/2024 12:45	CIG843	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	2/1/2024 14:05	CIO171	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	0.0000028	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	2/3/2024 13:25	CIS950	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	2/11/2024 13:30	CJA991	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	2/19/2024 10:30	CJL998	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	2/22/2024 12:30	CJR707	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	3/6/2024 13:30	CKK597	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	0.0000218	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	3/16/2024 14:35	CKY603	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.000025	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	3/24/2024 10:10	CLG646	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	0.085	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.000024	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	4/4/2024 11:30	CLU070	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	4/16/2024 13:30	CMF987	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001
FIELDBLANK	6/2/2024 13:15	COP887	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002	<0.0005	<0.01	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001

Stn.Code	Collect Date/Time	Sample No.	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/3/2024 11:00	CHH929	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	1/10/2024 12:00	CHO391	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	1/19/2024 10:30	CHV455	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	1/28/2024 12:45	CIG843	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	2/1/2024 14:05	CIO171	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	2/3/2024 13:25	CIS950	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	2/11/2024 13:30	CJA991	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	2/19/2024 10:30	CJL998	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	2/22/2024 12:30	CJR707	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	3/6/2024 13:30	CKK597	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	3/16/2024 14:35	CKY603	<0.1	0.000024	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	3/24/2024 10:10	CLG646	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	4/4/2024 11:30	CLU070	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	4/16/2024 13:30	CMF987	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002
FIELDBLANK	6/2/2024 13:15	COP887	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	<0.001	<0.0001	<0.001	<0.05	<0.00001	<0.050	<0.001	<0.0002

Stn.Code	Collect Date/Time	Sample No.	D-Cu	D-Fe	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
FIELDBLANK	1/3/2024 11:00	CHH929	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	0.014	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/10/2024 12:00	CHO391	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/19/2024 10:30	CHV455	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	1/28/2024 12:45	CIG843	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/1/2024 14:05	CIO171	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	0.0000056	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/3/2024 13:25	CIS950	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	0.0000034	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/11/2024 13:30	CJA991	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/19/2024 10:30	CJL998	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	2/22/2024 12:30	CJR707	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/6/2024 13:30	CKK597	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/16/2024 14:35	CKY603	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	3/24/2024 10:10	CLG646	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/4/2024 11:30	CLU070	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	4/16/2024 13:30	CMF987	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
FIELDBLANK	6/2/2024 13:15	COP887	<0.0002	<0.005	<0.0002	<0.002	<0.050	<0.001	<0.0000019	<0.001	<0.001	<0.01	<0.050	<0.0001	<0.1	<0.00002	<0.050	<0.001	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001

Note: Grey shading denotes values above reported detection limit. "<" = Result not detected and is below the indicated detection limit. No value shown indicates a test result was not reported

Appendix 3-E: Water Quality Monitoring Field QA/QC Program

PEACE RIVER
HYDRO PARTNERS

TECHNICAL MEMORANDUM

To:	**Kael Hanak, Caroline Walmsley; PRHP**	**Date:**	**16 May 2018**
From:	**Meghan Goertzen, Neil Mallen**	**Project #:**	**A416-1**
Subject:	**Surface Water Quality QA/QC Program ARD/ML Management and Monitoring Site C Clean Energy Project**		

The purpose of this Memorandum is to document the Quality Assurance / Quality Control (QA/QC) Program that is employed by Lorax Environmental Services Ltd. (Lorax) on behalf of Peace River Hydro Partners (PRHP) for the Main Civil Works Contract for the Site C Clean Energy Project. The QA/QC program has been developed and implemented for surface water quality monitoring within the construction site. It is intended to validate monitoring data, and to identify potential deficiencies of the monitoring program.

The integrity of the water quality sampling program, and analytical measurements of samples collected within it, are evaluated using various QA/QC practices. It is recommended that these practices include collection of quality control samples (blanks and replicates) and the establishment of data quality objectives for sample results (with specific objectives for dissolved vs. total metal concentrations, and sample hold times). Recommended QA/QC components are presented in further detail below.

The results of the QA/QC Program are documented in quarterly and annual metal leaching and acid rock drainage (ARD/ML) monitoring reports that are prepared by Lorax for submission to PRHP. Reporting includes the number of field blanks and replicates collected, as well as the proportion of these samples as compared with the total number of water quality samples obtained. General industry practice suggests one QA/QC sample (*e.g.*, a blank or duplicate) should be obtained for every 10 water quality samples obtained (or 10%) as part of the monitoring program. The report also includes an analysis and interpretation of samples in which a dissolved metal concentration exceeds the total concentration, and documents exceedance of hold times recommended by the analytical laboratory, as well as certain practical limitations with respect to hold times.

1. Blanks

Blank water quality samples are comprised of analyte-free reagent water and are used to assess sample contamination (as recommended by Clark, 2013). Field blanks are used to detect potential contamination resulting from the sample collection method, handling, filtration, preservation, and exposure to the environment. Blank samples are typically collected by having the environmental monitor pour de-ionized (DI) water into clean sample bottles in the same environment in which

actual samples are collected, and then processing the blank at the laboratory in the same manner as other samples.

2. Replicates

Replicates are independent samples collected as close as possible from the same location and at the same time as the original to characterize environmental variability and the precision of the entire sampling and analytical process (as per Clark, 2013). For the purpose of this Memorandum, originals and duplicates are considered paired replicates collected from the same location sequentially in time.

The BC Field Sampling Manual (Clark, 2013) provides the following acceptability criteria for field duplicates:

> *It should be expected that the Relative Percent Difference (RPD) is somewhat greater than that for laboratory duplicates. If one of a set of duplicate values is at or greater than five times the Method Detection Limit, then RPD values >20% indicate a possible problem, and > 50% indicate a definite problem, most likely either contamination or lack of sample representativeness.*

Any duplicate samples for which the RPD is greater than 20% and greater than 50% are reported. In addition, duplicates that had parameters with RPDs greater than 50%, in which the parameter value was greater than five-times the RDL in at least one of the sample duplicates, are reported in a separate table.

3. Total versus Dissolved Metals

For the purpose of this QA/QC program, a dissolved metal concentration that is higher than the corresponding total metal concentration is considered to be an indication of potential sample contamination or analytical error. Total and dissolved metals data for samples collected at all water quality monitoring stations in each quarter are compared. The dissolved metal concentration is flagged as a potential QA/QC issue if the concentration is >20% higher than the corresponding total metal value in the same sample. Variability of less than 20% is excluded because it is within the analytical margin of error.

Dissolved and total metal pairs are included in this analysis if the dissolved value is greater than five-times its reported detection limit (RDL), similar to guidance presented in the BC Field Sampling Manual (Clark 2013) for acceptability criteria for duplicate sample. This is more conservative than the industry convention which limits the analysis to parameter pairs where *both* total and dissolved values are greater than five-times RDL.

4. Sample Hold Time

Sample hold time is the length of time between collection of a water sample and its analysis at the laboratory. Recommended sample hold times are summarized in Table 4-1 below. In general, transport of samples from the Project site to the designated laboratory (Maxxam) depot in Fort St John typically occur on the same day as sample collection. Samples are then transported to the Maxxam laboratory, located in Burnaby B.C., which typically receives the samples the same evening or the following day.

Based on guidance from Maxxam, parameters with the shortest hold-times (three days or less) include ammonia (if unpreserved), nitrate / nitrite, pH, and turbidity. Results for these parameters may be associated with higher uncertainty if the hold times are exceeded.

Table 4-1:
Recommended water quality sample hold times (Source: Maxxam Analytics)

Analytical Parameter	Hold Time
Alkalinity	14 Days
Ammonia	28 Days
Ammonia, Un-Preserved	3 Days
Bromide	28 Days
Chloride	28 Days
Chromium VI - Dissolved	30 Days
Chromium VI - Total	30 Days
Conductivity	28 Days
Dissolved Organic Carbon (DOC)	28 Days
Fluoride	28 Days
Metals – Dissolved	180 Days
Metals – Total	180 Days
Nitrate/Nitrite	3 Days
pH	15 Minutes
Phosphorus – Total	28 Days
Solids - TDS	7 Days
Solids – TSS	7 Days
Sulphate	28 Days
Total Organic Carbon (TOC)	28 Days
Total Nitrogen (TN)	28 Days
Turbidity	3 Days

As of May 2017, hold time exceedances have been flagged by Maxxam and reported in each sample's Certificate of Analysis (CoA) as a laboratory comment. All comments are entered into PRHP's EQWIN database during data import; hold times are reviewed on a weekly basis by Lorax as part of the weekly ARD report, and recommendations for improvement are provided as necessary.

5. Closure

We trust that this technical memorandum addresses your current needs. Please contact us should you have any questions.

Respectively Submitted,
Lorax Environmental Services Ltd.

Original Signed by:

Meghan Goertzen, M.Sc., R.P.Bio.
Environmental Toxicologist

Original Signed by:

Neil Mallen, M.Sc., EP, PMP
Senior Environmental Scientist

Appendix 3-F: Bureau Veritas (Burnaby) Scope of Accreditation

PEACE RIVER
HYDRO PARTNERS

Standards Council of Canada
Conseil canadien des normes

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Accredited Laboratory No. 117

Legal Name of Accredited Laboratory:	**Bureau Veritas Canada (2019) Inc., formerly known as Maxxam Analytics**
Location Name or Operating as (if applicable):	
Contact Name:	Alice (Hsiao Yun) Lu
Address:	4606 Canada Way, Burnaby, BC. V5G 1K5
Telephone:	+1 604 734-7276
Fax:	+1 604 731-2386
Website:	www.bvna.com
Email:	Alice.A.Lu@bureauveritas.com

SCC File Number:	15188
Accreditation Standard(s):	ISO/IEC 17025:2017
Fields of Testing:	Biological Chemical/Physical Forensic
Program Specialty Area:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Environmental Testing (ET) Forensic
Initial Accreditation:	1993-06-08
Most Recent Accreditation:	2021-04-22
Accreditation Valid to:	2025-06-08

Forensic Testing currently being conducted at both:
8577 Commerce Court,
Burnaby BC V5A 4N5
And
4606 Canada Way,
Burnaby, BC V5G 1K5

Forensics:
Forensic Equine Drug Testing (Drugs in Horse Hair, Urine and Blood)

ANIMAL AND PLANTS (AGRICULTURE)

Foods and Edible Products: (Human and Animal Consumption)

(Feed)

BBY4SOP-00105	Determination of 17-a-Methyltestosterone in Feed

(Food Methods: Proximate Analysis)

BBY4SOP-00104	Determination Histamine in Fish

(Fruits and Vegetables, Processed Foods, Animal Tissue, Meat, Fish, Dairy, Honey, Eggs and Egg Products and Animal Derived Foods)

BBY4SOP-00048	Determination of Tetracyclines in Tissue and Animal Derived Foods Doxycycline Chlortetracycline Oxytetracycline Tetracycline epi-Tetracycline epi- Oxytetracycline epi- Chlortetracycline
BBY4SOP-00052	Determination of Phenol in Honey
BBY4SOP-00061	Determination of Halofuginone in Tissue and Animal Derived Foods
BBY4SOP-00066	Alachlor Heptachlor Aldrin Heptachlor Epoxide-endo Endosulfan-alpha Heptachlor Epoxide-exo Ametryn Hexachlorobenzene Aspon Iprobenfos Benalaxyl Isofenphos Benfluralin Isopropalin Endosulfan-beta Isoprothiolane

BHC-alpha
Kresoxim-methyl
BHC-beta
Leptophos
BHC-delta
Lindane (gamma-BHC)
Bifenthrin
Malathion
Bromophos
Metazachlor
Bromophos-ethyl
Methoxychlor
Bromopropylate
Methyl Pentachlorophenyl sulphide
Bupirimate
Metolachlor
Butachlor
Mirex
Carboxin
Myclobutanil
Chlorbenzilate
o,p'-DDD (o,p'-TDE)
Chlordimeform
o,p'-DDE
Chlorflurenol-methyl
o,p'-DDT
Chloropropylate
Oxadiazon
Chlorpropham
Oxychlordane
Chlorpyrifos
p,p'-DDD (p,p'-TDE)
Chlorpyrifos-methyl
p,p'-DDE
Chlorthiophos
p,p'-DDT
Chlozolinate
Penconazole
Cyprazine
Pentachloroaniline
Cyprodinil
Phenthoate
Dacthal
Piperonyl Butoxide
Demeton-S-methyl
Pirimicarb
Desmetryn
Pirimiphos-ethyl
Diazinon

Pirimiphos-methyl
Diclobutrazole
Procymidone
Diclofop-methyl
Profenofos
Dieldrin
Profluralin
Diethatyl-ethyl
Prometon
Dimethachlor
Prometryne
Diphenamid
Pronamide
Diphenylamine
Propachlor
Disulfoton
Propanil
Endosulfan Sulfate
Propazine
Endrin
Propetamphos
Ethalfluralin
Prothiophos
Ethion
Pyrazophos
Ethofumsate
Quinalophos
Ethoprophos
Quintozene (PCNB)
Ethylan
Secbumeton
Etrimfos
Sulfotep
Fenarimol
Sulprophos
Fenchlorophos (Ronnel)
Tecnazene
Flamprop-isopropyl
Terbutylazine
Flamprop-methyl
Tetrasul
Fluchloralin
Thiobencarb
Fludioxonil
Tolclofos-methyl
Fluorochloridone
Triazophos
Flusilazole
Trifluralin

	Fonofos Vinclozolin
BBY4SOP-00118	Determination of Herbicide in Food Clopyralid Florasulam Fluroxypyr Bromoxynil Bentazon MCPA (2-methyl-4-chlorophenoxyacetic acid; 4-chloro-o-tolyoxyacetic acid) 2,4-D (2,4-dichlorophenoxyacetic acid) Metsulfuron Methyl (Ally) Thiencarbazone-methyl
BBY4SOP-00121	Fumonisins in Grains, Corn Products and Processed Foods
BBY7SOP-00011	Analysis of Metals in Meat, Fruit and Vegetables, Processed Foods and Animal Derived Foods by ICP-MS
BBY7SOP-00021	Digestion of Tissue, Vegetation for Analysis of Heavy Metals

(Microbiological)

AOAC 2014.05	Enumeration of Yeast and Moulds in Food using 3M™ Petrifilm™ Rapid Yeast And Mold Count (RYM) Plate
Assurance GDS® MPX Top 7 STEC Assay	BioControl Assurance GDS® MPX Top 7 STEC
COR1SOP-00019	Enumeration of Coliforms, Faecal Coliforms and *E.coli* in Foods by using the MPN Method(Modified MFHPB-19; option of standard 3-tube and 10-tube MPN Method)
FDA BAM	BAM FDA Isolation and Identification of Salmonella in Food and Environment Samples
MFHPB-10	Isolation of *Escherichia coli* O157:H7/NM from foods and environmental surface samples
MFHPB-18	Determination of Aerobic Colony Count in Foods
MFHPB-19	Enumeration of Coliforms, Faecal Coliforms and *E. coli* in Foods by using the MPN Method
MFHPB-20	Isolation and Identification of *Salmonella* from Foods and Environmental Samples
MFHPB-21	Enumeration of *Staphylococcus aureus* in Foods
MFHPB-22	Enumeration of Yeasts and Molds in Foods
MFHPB-23	Enumeration of *Clostridium perfringens* in Foods
MFHPB-29	VIDAS Detection of Listeria spp. in Food, Environmental Samples
MFHPB-30	Isolation of *Listeria monocytogenes* and *Listeria spp.* from Foods and Environmental Samples
MFHPB-33	Enumeration of Total Aerobic Bacteria in food Products and Food Ingredients Using 3M™ Petrifilm™ Aerobic Count Plates

MFHPB-34	Enumeration of *E. coli* and Coliforms in Food Products and Food Ingredients using 3M™ Petrifilm™ *E. coli Count* Plates
MFHPB-35	Enumeration of Coliforms in Food Products and Food Ingredients using 3M™ Petrifilm™ Coliform Count Plates
MFLP-09	Enumeration of *Enterobacteriaceae* Species in Food and Environmental Samples Using 3M Petrifilm *Enterobacteriaceae* Count Plates
MFLP-16	Detection of *Escherichia coli* O157:H7 in Foods - Assurance GDS® for E. coli O157:H7 Gene Detection System
MFLP-21	Enumeration of *Staphylococcus aureus* in Foods and Environmental Samples Using 3M™ Petrifilm™ Staph Express Count (STX) Plates
MFLP-25	Isolation and Identification of *Shigella spp*. From Foods
MFLP-28	The Qualicon BAX ®System Method for the Detection of *Listeria monocytogenes* in a Variety of Food
MFLP-29	The Qualicon BAX® System for the Detection of *Salmonella* in Foods and Environmental Surface Samples
MFLP-30	Detection of E. coli O157:H7 in select foods using the BAX® system E.coli O157:H7 MP
MFLP-33	Detection of *Listeria monocytogenes* in Foods by the VIDAS LMO 2™ Method
MFLP-37	Part 1: Detection of Halophilic Vibrio Species in Seafood Part 2: Detection of *Vibrio cholerae*
MFLP-38	Detection of *Salmonella spp*. from All Foods and Selected Environmental Surfaces using IQ-Check™ Salmonella Real-time PCR Test Kit
MFLP-39	Detection of *Listeria* spp. from Environmental Surfaces and heat processed RTE Meat and Poultry Using iQ-CheckTM Listeria spp. Real-Time PCR Test Kit
MFLP-42	Isolation and Enumeration of *Bacillus cereus* Group in Foods
MFLP-46	Isolation of Thermophilic *Campylobacter* from Food
MFLP-49	Detection of Salmonella *spp* in Food Products and environmental surfaces by the VIDAS® UP Salmonella (SPT) Method
MFLP-54	Detection of *Listeria monocytogenes* from selected foods using iQ-Check™ *Listeria monocytogenes* Real-Time PCR Test Kit
MFLP-59	Detection of *Listeria spp.* in food products and environmental surface samples with VIDAS® UP *Listeria* (LPT)
MFLP-74	Enumeration of *Listeria monocytogenes* in Food
MFLP-77	Detection of *Listeria* spp. in food products and environmental samples by the VIDAS® *Listeria* species Xpress (LSX) method
MFLP-79	Detection of *Listeria* spp. in Environmental Surface Samples Using the BAX® System Real-Time PCR Assay for *Listeria* Genus
MFLP-83	Detection of Verotoxins VT 1 And VT 2 from *E. coli* O157:H7/NM by The Merck Duopath® Verotoxin Kit

MLG4	FSIS Procedure for the Isolation and Identification of *Salmonella* from Meat, Poultry, Pasteurized egg and Siluriformes (Fish) products and Carcass and Environmental Sponge samples
MLG41	Isolation, Identification of Campylobacter jejuni/coli/lari from Poultry Rinse and Sponge and Raw Product Samples
COR1SOP-00089	USP: Enterobacterial Count in NHP by MPN Method
COR1SOP-00093	USP: Detection and Enumeration for *Pseudomonas aeruginosa* in NHP

(Natural Health Products)

BBY4SOP-00150	Determination of Pesticides in Natural Health Products
USP40-NF35 S1. Dietary Supplements Chapters: 2021	Microbial Enumeration Tests-Nutritional and Dietary Supplements Total Aerobic Microbial Count by Plate Method
USP40-NF35 S1. Dietary Supplements Chapters: 2021	Microbial Enumeration Tests-Nutritional and Dietary Supplements Total Combined Molds and Yeast Count by Plate Method
USP40-NF35 S1. Dietary Supplements Chapters: 2022	Microbiological Procedures for absence of specified microorganisms - Nutritional and Dietary Supplements Test for Absence of *Staphylococcus aureus*
USP40-NF35 S1. Dietary Supplements Chapters: 2022	Microbiological Procedures for absence of specified microorganisms - Nutritional and Dietary Supplements Test for Absence of *Salmonella species*
USP40-NF35 S1. Dietary Supplements Chapters: 2022	Microbiological Procedures for absence of specified microorganisms - Nutritional and Dietary Supplements Test for Absence of *Escherichia coli*

(Other)

BBY4SOP-00032	Determination of Aminoglycocides in Tissue and Animal Derived Foods
BBY4SOP-00033	Determination of Dithiocarbamates (EBDC) in Fruits and Vegetables, Processed Foods and Animal Derived Foods by CS_2 Evolution
BBY4SOP-00035	Determination of Chlorinated Phenols in Tissue and Animal Derived Foods
BBY4SOP-00036	Determination of Fluoroquinolones and Quinolones in Tissue and Animal Derived Food
BBY4SOP-00037	Determination of Synthetic Pyrethrins in Animals Tissue and Animal Derived Foods
BBY4SOP-00038	Determination of Carbamates in Tissue and Animal Derived Foods
BBY4SOP-00043	Determination of Ethylenebisdithiocarbamate (EBDC) in Fruits and Vegetables,Processed Foods and Animal Derived Foods

BBY4SOP-00044	Determination of Daminozide (ALAR) in Fruits and Vegetables, Processed Foods and Animal Derived Foods
BBY4SOP-00045	Determination of Ethylenethiourea in Fruits and Vegetables, Processed Foods and Animal Derived Foods
BBY4SOP-00046	Determination of Coccidiostats in Tissue and Animal Derived Foods
BBY4SOP-00047	Determination of Gestagens in AnimalTissue and Dairy
BBY4SOP-00050	Determination of Sulfonamides in Tissue and Animal Derived Foods
BBY4SOP-00051	Determination of Amitraz and Metabolites in Fruits and Vegetables, Processed Foods and Animal Derived Foods
BBY4SOP-00054	Determination of Dipyrone Related Residues in Tissue and Animal Derived Foods
BBY4SOP-00055	Determination of Free and Total Residues of Beta Agonists in Tissue and Animal Derived Foods
BBY4SOP-00056	Determination of Virginiamycin in Tissue and Animal Derived Foods
BBY4SOP-00059	Determination of Ceftiofur-Related Residues in Tissue and Animal Derived Foods
BBY4SOP-00060	Determination of Benzimidazoles in Tissue and Animal Derived Foods
BBY4SOP-00062	Determination of Endectocides in Tissue, Feedand Animal Derived Foods
BBY4SOP-00063	Determination of Phenylbutazone in Tissue and Animal Derived Foods
BBY4SOP-00064	Determination of Protein Bound Metabolites of Nitrofurans in Tissue and Animal Derived Foods
BBY4SOP-00068	Determination of Tranquilizers and Carazolol in Tissue and Animal Derived Foods
BBY4SOP-00069	Determination of Morantel and Pyrantel Drug Related Metabolites in Tissue and Animal Derived Foods
BBY4SOP-00070	Determination of Zeranol and Stilbenes in Tissue and Animal Derived Foods
BBY4SOP-00079	Determination of Volatile Pesticides in Tissue
BBY4SOP-00080	Detection of Thyreostats in Animal Tissue, Eggs and Dairy
BBY4SOP-00082	Determination of Triphenylmethane Dyes in Tissue
BBY4SOP-00083	Determination of Carbadox and Olaquindox-Related Metabolites in Tissue
BBY4SOP-00084	Determination of Amphenicols in Tissue and Animal Derived Foods
BBY4SOP-00085	Determination of Bacitracin A in Tissue and Animal Derived Foods
BBY4SOP-00086	Determination of Nitroimidazoles in Tissue and Animal Derived Foods
BBY4SOP-00087	Determination of Aflatoxin in Dairy

BBY4SOP-00089	Determination of Beta Lactams in Animal Tissue and Animal Derived Foods
BBY4SOP-00091	Determination of Non-Steroidal Anti-Inflammatory Drugs (NSAIDS), Hormones and Corticosteroids in Animal Tissue, Eggs and Dairy
BBY4SOP-00092	Determination of Melamine in Eggs, Dairy and Processed Foods
BBY4SOP-00093	Determination of Bisphenol A in Dairy and Processed Foods
BBY4SOP-00094	Determination of Ochratoxin A in Cereals and Processed Foods
BBY4SOP-00095	Determination of Deoxynivalenol (Vomitoxin) in Cereal and Cereal Products
BBY4SOP-00099	Determination of Macrolides in Tissue and Animal Derived Foods
BBY4SOP-00100	Determination of Trenbolone in Tissue and Animal Derived Foods
BBY4SOP-00111	Aflatoxins in Food and Animal Feed
BBY4SOP-00123	Determination of Pesticides in Process Foods by GCMSMS and LCMSMS
BBY4SOP-00128	Determination of Pesticides in FV Products and Honey by GC/LC
BBY4SOP-00129	Determination of Pesticides in Tissue by GCMSMS and LCMSMS
BBY4SOP-00130	Determination of Tiamulin in Animal Tissue
BBY4SOP-00131	Determination of 3-monochloropropane-1,2-diol (3-MCPD) in Food and Food Ingredients
BBY4SOP-00132	Multi-Residue Determination of Multi-Class Drugs in Urine
BBY4SOP-00134	Determination of Ethyl Carbamate in Alcoholic Beverages
BBY4SOP-00135	Determination of Diquat and Paraquat in Fruit, Vegetables and Processed Foods
BBY4SOP-00136	Determination of Glyphosate and Metabolites in Fruit, Vegetables and Processed Foods
BBY4SOP-00137	Determination of Alternaria Mycotoxins in Beverages and Honey
BBY4SOP-00138	Multi-Residue Determination of Multi-Class Drugs in Animal Tissue and Animal Derived Foods
BBY4SOP-00139	Multi-Residue Determination of Multi-Class Antibiotics in Honey
BBY4SOP-00142	Determination of Steroids and Stilbenes in Fish
BBY4SOP-00144	Multi-Residue Determination of Multi-Class Drugs in Animal Feed and Pre-Feed
BBY4SOP-00145	Determination of 4-Methylimidazole in Processed Foods
BBY4SOP-00146	Determination of T-2 and HT2 Mycotoxins in Processed Foods
BBY4SOP-00147	Determination of Zearalenone and Related Mycotoxins in Processed Foods
BBY4SOP-00149	Multi-residue determination of Mycotoxins in Processed Foods
BBY7SOP-00014	Determination of Mercury in Tissue Digests
BBY4SOP-00151	Phthalates in Food by LC-MS/MS
BBY4SOP-00152	Determination of Polar Pesticides in Food Amitrole Chlormequat Cyromazine

Daminozide
Desphenyl Chloridazon
Difenzoquat
Diquat
ETU (Ethylenethiourea)
Melamine
Mepiquat
Nereistoxin
Paraquat
Propamocarb

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental

(Microbiological)

BBY4SOP-00001	Total and Fecal Coliform and *E. coli* in Water by Membrane Filtration
BBY4SOP-00003	Heterotrophic Plate Count in Water
BBY4SOP-00005	*Pseudomonas aeruginosa* Count in Water by Membrane Filtration
BBY4SOP-00006	*Enterrococcus* Count in Water by Membrane Filtration
BBY4SOP-00143	Enumeration of Coliforms and E.coli by MF using Chromocult

(Biological Tissues)

BBY4SOP-00108	Determination of Polycyclic Aromatic Hydrocarbons in Tissue by GC/MS
BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS
BBY7SOP-00012	Determination of Hg in Solids, Tissues and Miscellaneous Solids by CVAFS

(Air)

BBY5SOP-00005	Analysis of Total Suspended Particulates (TSP), PM2.5, and PM10 in Air [modified from BC Environmental Laboratory Manual Section G and EPA 600/R-94/038B]
	Particulate>2.5 microns (gravimetric)
BBY7SOP-00016	Preparation of Air Filters for Metals Analysis [modified from NIOSH 7303]
BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020]
	Aluminum

	Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Sodium Strontium Sulphur (Sulfur) Tin Titanium Uranium Vanadium Zinc Zirconium
BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [EPA 6010] Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese

	Molybdenum Nickel Phosphorus Potassium Selenium Sodium Strontium Sulphur (Sulfur) Tin Titanium Vanadium Zinc Zirconium
BBY8SOP-00027	Determination of Polycyclic Aromatic Hydrocarbons in Air by GC/MS [modified from BC Environmental Laboratory Manual (Preparation) and EPA 8270 (Analysis)] Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo(a)pyrene Benzo(b,j)fluoranthene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo (a,h) anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Perylene Phenanthrene Pyrene
BBY8SOP-00058	VOCs In Air/vapour Using TD Tubes with Analysis by GC/MS [modified from BC Environmental Laboratory Manual Section H] 1,1-Dichloroethane 1,1-Dichloroethene 1,1-Dichloropropene 1,1,1-Trichloroethane 1,1,1,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1,2,2-Tetrachloroethane 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (Ethylene dibromide) 1,2-Dichlorobenzene

1,2-Dichloroethane
1,2-Dichloropropane
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,3-Trimethylbenzene
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,3-Butadiene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,3,5-Trimethylbenzene
1,4-Dichlorobenzene
2-Butanone (Methyl ethyl ketone, MEK)
2-Chlorophenol
2-Chlorotoluene
2-Hexanone (Methyl butyl ketone, MBK)
2-Propanol (Isopropyl alcohol)
4-Chlorotoluene (p-Chlorotoluene)
4-isopropyltoluene (p-Cymene)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromobenzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon Disulphide
Carbon tetrachloride
Chlorobenzene
Chloroethane (Ethyl Chloride)
Chloroethene (Vinyl chloride)
Chloroform
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dibromochloromethane
Dibromomethane
Dichlorodifluoromethane (Freon12)
Dichloromethane
Ethyl Acetate
Ethylbenzene
Hexachlorobutadiene
Isopropanol
Isopropylbenzene (Cumene)
m,p-Xylene
Methyl tert-butyl ether (MTBE)
Methylcyclohexane
n-Butylbenzene
n-Decane
n-Hexane

n-Propylbenzene
Naphthalene
o-Xylene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrachloroethylene
Toluene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Trichlorotrifluoroethane
Volatile Hydrocarbons (VH): C6-C13

(Soil/Solid/Water/Wastewater)

BBY6SOP-00010	Nitrite and Nitrite Plus Nitrate by Automated Colourimetric Method [modified from SM 4500-NO3- I] Nitrate + Nitrite Nitrogen Nitrite
BBY6SOP-00017	Determination of Sulfate by Konelab [modified from SM 4500-SO4 2-] Sulphate
BBY8SOP-00010	Determination of BTEX in Soil and Waters by Headspace-GC-MS [modified from EPA 5021 and EPA 5035 and EPA 8260] Benzene Ethylbenzene m,p-Xylene Methyl t-butyl ether o-Xylene Styrene Toluene
BBY8SOP-00011	VH Analysis in Soils and Waters by Headspace GC/FID [modified from BC Environmental Laboratory Manual Section D] VH: C6-C10 VPH: C6-C10 - BTEX
BBY8SOP-00029	Extractable Hydrocarbons (Water, Soils, Product, TPH) [modified from BC Environmental Laboratory Manual Section D] Extractable Petroleum Hydrocarbons (EPH): C10-C19 Extractable Petroleum Hydrocarbons (EPH): C19-C32 Total Extractable Hydrocarbons (TEH): C10-C30
BBY8SOP-00030	Determination of CCME (F2-F4) in Water and Soil [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD] F2: C10-C16 F3: C16-C34 F4: C34-C50
BBY8SOP-00012	F1 and LH Analysis for Soils and Waters by Headspace GC/FID [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD]

	F1: C6-C10 F1-BTEX: C6-C10 - BTEX
BBY8SOP-00054	CP, NCP, HydroxyPhenol in water (MTBE extraction) and soil by GC/MS [modified from BC Environmental Laboratory Manual Section D] 2-Chlorophenol 2-Hydroxyphenol (Catechol) 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-o-cresol, DNOC) 2-Methylphenol (o-Cresol) 2-Nitrophenol 2,3-Dichlorophenol 2,3,4-Trichlorophenol 2,3,4,5-Tetrachlorophenol 2,3,4,6-Tetrachlorophenol 2,3,5-Trichlorophenol 2,3,5,6-Tetrachlorophenol 2,3,6-Trichlorophenol 2,4 + 2,5-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,6-Dichlorophenol 2,6-Dimethylphenol 3 + 4-Chlorophenol 3 + 4-Methylphenol 3-Hydroxyphenol (Resorcinol) 3,4-Dichlorophenol 3,4-Dimethylphenol 3,4,5-Trichlorophenol 3,5-Dichlorophenol 4-Chloro-3-methylphenol 4-Hydroxyphenol (Hydroquinone) 4-Nitrophenol Pentachlorophenol Phenol
BBY8SOP-00060	Determination of Tetraethyllead in Soil and Water by GC/MS [modified from BC Environmental Laboratory Manual Section D and EPA 8000, EPA 8270] Tetraethyl lead
BBY8SOP-00009	Analysis of VOC's in Solids and Waters by Static Headspace GC/MS [modified from EPA 5021 and EPA 8260] 1,1-Dichloroethane 1,1-dichloroethylene 1,1-Dichloropropene 1,1,1-Trichloroethane 1,1,1,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1,2-Trichloropropane

1,1,2-Trichloro-1,2,2-Triflouroethane (Freon 113)
1,1,2,2-Tetrachloroethane
1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (Ethylene dibromide)
1,2-dichlorobenzene
1,2-dichloroethane
1,2-Dichloropropane
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,3-Trichloropropene
1,2,3-Trimethylbenzene
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,3-Butadiene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,3,5-Trichlorobenzene
1,3,5-Trimethylbenzene
1,4-dichlorobenzene
2-Butanone
2-Chlorotoluene
4-Methyl-2Pentanone
4-Chlorotoluene (p-Chlorotoluene)
4-isopropyltoluene (p-Cymene)
Acetone
Benzene
Bromobenzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane (Ethyl Chloride)
Chloroethene (Vinyl Chloride)
Chloroform
Chloromethane (Methyl chloride)
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dibromomethane
Dichlorodifluoromethane
Dichloromethane
Ethylbenzene
Ethylene Dibromide
Hexachlorobutadiene
Hexane
Isopropylbenzene (Cumene)
m,p-Xylene
Methyl t-butyl ether

	Methylcyclohexane n-Butylbenzene n-Decane n-Propylbenzene Naphthalene o-Xylene Pentachloroethane sec-Butylbenzene Styrene tert-Butylbenzene Tetrachloroethylene Toluene trans-1,2-Dichloroethylene trans-1,3-Dichloropropene Trichloroethylene Trichlorofluoromethane
BBY8SOP-00040	VOC Extra Compounds in Soil and Water by Headspace-GC-MS [BC Environmental Laboratory Manual Section D] 1-Butanol (n-Butanol) 1-Chlorobutane 1,4-Dioxane (p-dioxane) 2-Hexanone (Methyl butyl ketone, MBK) 2-Propanol (Isopropyl alcohol) Acrolein (Propenal) Acrylonitrile Allyl chloride (3-chloropropene) Alpha-Diisobutylene Beta-Diisobutylene Butylated hydroxytoluene (BHT) Carbon disulfide Chloroprene (2-Chloro-1,3-butadiene) Cyclohexanone Cyclohexene Dicyclopentadiene Ethyl acrylate Ethyl ether Hexachloroethane Isobutanol (2-Methyl-1-propanol) Methyl methacrylate Methylacrylonitrile Tetrabromomethane Tetrahydrofuran (THF) Vinyl acetate

(Soil/Solid/Waste)

BBY6SOP-00042	Determination of Flash Point by SetaFlash Closed Tester [modified from ASTM D3828] Flashpoint

BBY6SOP-00043	Determination of Free Liquid [modified from EPA 9095] Free Liquid
BBY7SOP-00004	Digestion of Soil, Sediment and Sludge for Total Recoverable Metals [modified from BC Environmental Laboratory Manual Section C]
BBY7SOP-00012	Determination of Hg in Solids, Tissues and Miscellaneous Solids by CVAFS [modified from EPA 245.7 and BC Environmental Laboratory Manual Section C] Mercury
BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [modified from EPA 6010 and BC Environmental Laboratory Manual Section B] Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Silver Sodium Strontium Tin Titanium Vanadium Zinc Zirconium
BBY8SOP-00003	Gravimetric Heavy Hydrocarbon-CCME F4G in Soils by AME [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD] F4: Gravimetric
BBY8SOP-00006	Total Oil and Grease in Soils by Sonification Extraction-Dichloromethane [modified from BC Environmental Laboratory Manual Section D] Total Oil and Grease

BBY8SOP-00007	Mineral Oil and Grease in Solid Samples by Sonification Extraction [modified from BC Environmental Laboratory Manual Section D] Mineral Oil and Grease
BBY8SOP-00008	Waste Oil Quantification in Solids, Liquids by Petroleum Ether Extraction [BC Environmental Laboratory Manual Section D] Waste Oil Content
BBY8SOP-00017	Determination of Moisture Content in Solid Samples [modified from BC Environment Laboratory Manual] Percent Moisture
BBY8SOP-00022	Determination of Polycyclic Aromatic Hydrocarbons in Soil by GC/MS [modified from BC Environmental Laboratory Manual Section D] 1-Methylnaphthalene 2-Chloronaphthalene 2-Methylnaphthalene 3-Methylcholanthrene 4-Nitropyrene 7,12-Dimethylbenz(a)anthracene 9,10-Anthraquinone Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(c)phenanthrene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(j)fluoranthene Benzo(k)fluoranthene Chrysene Dibenzo(a,e)pyrene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3 - cd)pyrene N-Methylaniline Naphthalene Perylene Phenanthrene Pyrene Quinoline
BBY8SOP-00050	Determination of Tributyltin in Soil and Sediment by GC-MS [modified from RESTEK CORP APPLICATION NOTE# 59550] Tributyltin Dibutyltin

(Water/Wastewater/Soil Extract/Soil Leachate)

BBY0SOP-00003	Determination of pH in Waters, Leachates and Extracts by pH Meter [modified from SM 4500-H+ B] pH
BBY0SOP-00006	Determination of Conductivity in Waters, Leachates and Extracts by Meter [modified from SM 2510 B] Conductivity (25˚C)
AB SOP-00007	Ammonia-Nitrogen by Automated Phenate Colorimetric method [modified from EPA 350.1] Ammonia
BBY6SOP-00011	Determination of Chloride by Konelab [modified from SM 4500-CL-E and BC Environmental Laboratory Manual Section B] Chloride
BBY6SOP-00013	Ortho-, Total Dissolved, and Total Phosphate by Automated Method [modified from SM 4500-P E] Phosphate Total Dissolved Phosphorus Total Phosphorus
BBY6SOP-00016	Determination of Total and Total Dissolved Nitrogen by Automated Method [modified from SM 4500-N C] Total Dissolved Nitrogen Total Nitrogen
BBY6SOP-00021	Determination of Apparent Colour in Water Samples [modified from SM 2120 B] Apparent Colour
BBY6SOP-00024	Chemical Oxygen Demand (COD) by Closed Reflux, Colorimetric Method [modified from SM 5220 D] COD
BBY6SOP-00025	Determination of pH in Saturated Paste Extract [modified from SM 4500-H+ B] pH
BBY6SOP-00026	pH, Conductivity, Salinity, Alkalinity (Total, Phenolphthalein) in Water [modified from SM 2320 B, SM 2510 B, SM 4500-H+ B] Alkalinity (pH 4.5) Conductivity (25˚C) pH
BBY6SOP-00027	Determination of Turbidity in Water Samples [modified from SM 2130 B] Turbidity
BBY6SOP-00028	Determination of pH in Soil Leachate [modified from BC Environmental Laboratory Manual Section B] pH
BBY6SOP-00029	Specific Conductance in Satpaste and 1:5 DI Leach by Conductivity Cell [modified from SM 2510 B] Conductivity

BBY6SOP-00030	Satpaste Extract Preparation for Saturation Percent, Salinity Analyses [modified from BC Environmental Laboratory Manual Section B] Percent Saturation Saturated Paste
BBY6SOP-00033	Determination of Total Dissolved Solids in Waters and Wastewaters [modified from SM 2540 C] Total Dissolved Solids
BBY6SOP-00034	Determination of Total Suspended Solids in Waters and Wastewaters [modified from SM 2540 D] Total Suspended Solids
BBY6SOP-00035	Determination of Total Solids and Total Solids Fixed in Waters [modified from SM 2540 A] Fixed Solids Total Solids (TS)
BBY6SOP-00037	Determination of Total Acidity pH 8.3, Acidity to pH 4.5, in Waters [modified from SM 2310 B] Acidity
BBY6SOP-00045	Total and Carbonaceous BOD, DO, and pH Analysis [modified from SM 5210 B] BOD (5 day) CBOD (5 day)
BBY6SOP-00048	Determination of Fluoride in Waters, Soil Extracts, Leachates by ISE [modified from BC MOE ENVIRONMENTAL MANAGEMENT ACT HAZARDOUS WASTE REGULATION (EMA/HWR) SCHEDULE 4, PART 2 (Preparation) and SM 4500-F- C (Analysis)] Fluoride
BBY6SOP-00057	Determination of True Colour in Water Samples by Konelab [modified from SM 2120 C] True Colour
BBY7SOP-00001	Determination of Metals in Solids by ICPMS [modified from EPA 6020] Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Manganese Mercury Molybdenum Nickel

	Selenium Silver Thallium Tin Vanadium Uranium Zinc Zirconium
BBY7SOP-00005	Procedure for the Preparation of Solids and Soil using TCLP [EPA 1311]
BBY7SOP-00009	Procedure for the Preparation of Leachates Using BC MLEP [modified from BC MOE ENVIRONMENTAL MANAGEMENT ACT HAZARDOUS WASTE REGULATION (EMA/HWR) SCHEDULE 4, PART 2]
BBY8SOP-00021	Determination of Polycyclic Aromatic Hydrocarbons in Waters by GC/MS [modified from BC Environmental Laboratory Manual Section D] 1-Methylnaphthalene 2-Chloronaphthalene 2-Methylnaphthalene 3-Methylcholanthrene 4-Nitropyrene 7,12-Dimethylbenz(a)anthracene 9,10-Anthraquinone Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b,j)fluoranthene Benzo(c)phenanthrene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,e)pyrene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene N-Methylaniline Naphthalene Perylene Phenanthrene Pyrene Quinoline
BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [modified from EPA 6010]

	Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Tin Titanium Vanadium Zinc Zirconium
BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020 and BC Environmental Laboratory Manual Section C] Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Cesium Chromium Cobalt Copper Gold

	Iron Lanthanum Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Palladium Phosphorus Platinum Potassium Rubidium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Tellurium Thallium Thorium Tin Titanium Tungsten Uranium Vanadium Zinc Zirconium
BBY7SOP-00003	Digestion of Aqueous Samples for Metals by ICPMS or ICP-OES [modified from EPA 6020 and BC Environmental Laboratory Manual Section C]
AB SOP-00084	Mercury in Water, Leachates and Liquids by Bromination and Cold Vapour [modified from BC Environmental Laboratory Manual Section C) Mercury
BBY7SOP-00022	Determination of Ultra-Low Level Mercury in Water by CVAFS [modified from EPA 1631] Mercury
BBY8SOP-00004	Oil and Grease in Water Samples by Hexane Extraction and Gravimetry [modified from BC Environmental Laboratory Manual Section D] Mineral Oil and Grease Total Oil and Grease
BBY8SOP-00059	Determination of Tributyltin in Water by GC-MS [modified from RESTEK CORP LIT. CAT#59550] Dibutyltin Tributyltin

BBY8SOP-00025	Chlorinated Phenols in Water (DCM extraction) by GC/MS [modified from BC Environmental Laboratory Manual Section D] 2-Chlorophenol 2,3-Dichlorophenol 2,3,4-Trichlorophenol 2,3,4,5-Tetrachlorophenol 2,3,4,6-tetrachlorophenol 2,3,5-Trichlorophenol 2,3,5,6-Tetrachlorophenol 2,3,6-Trichlorophenol 2,4 + 2,5-Dichlorophenol 2,4,5-Trichlorophenol 2,4,6-trichlorophenol 2,6-Dichlorophenol 3 + 4-Chlorophenol 3,4-Dichlorophenol 3,4,5-Trichlorophenol 3,5-Dichlorophenol 4-Chloro-3-Methylphenol Pentachlorophenol

(Seawater)

BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020] Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Silicon Silver

Sodium
Strontium
Sulphur (Sulfur)
Tellurium
Tin
Thallium
Titanium
Uranium
Vanadium
Zinc
Zirconium

(Soil / Solid – Toxicology)

BBY2SOP-00010	Chironomids dilutus 10-Day Survival and Growth Test [EPS 1/RM/32] Chironomids (10d)
BBY2SOP-00011	Hyalella azteca 14-Day Survival and Growth Test [EPS 1/RM/33] Hyalella azteca (14d)
BBY2SOP-00012	Marine or Estuarine Amphipod 10 Day Survival and Reburial Test [EPS 1/RM/26 and EPS 1/RM/35] Marine Amphipods (10d)
BBY2SOP-00014	Microtox - Acute Solid Phase Analysis [EPS 1/RM/42] Microtox IC50
BBY2SOP-00030	Neanthes arenaceodentata Survival and Growth Test Neanthes (20d)
BBY2SOP-00032	Bivalve Larval Development Sediment Test [PUGET SOUND ESTUARY PROGRAM 1995 B] Bivalves (48hr)
BBY2SOP-00062	Echinoderm Embryo / Larval Development Test [EPS 1/RM/58] Echinoid Larval Development (48hr)

(Water – Toxicology)

BBY2SOP-00001	Ceriodaphnia dubia Chronic Survival and Reproduction Test [EPS 1/RM/21] Ceriodaphnia dubia (7d)
BBY2SOP-00002	Fathead Minnow 7 Day Survival and Growth Test [EPS 1/RM/22] Fathead Minnow (7d)
BBY2SOP-00004	Rainbow Trout Acute Survival Test (Environment Canada) [EPS 1/RM/13 and EPS 1/RM/9] Single Concentration (96hr) Trout LC50 (96hr)
BBY2SOP-00006	Pseudokirchneriella Subcapitata 72H Growth Inhibition Test [EPS 1/RM/25] Pseudokirchneriella subcapitata (72hr)
BBY2SOP-00007	Daphnia magna 48 Hour Acute Test [EPS 1/RM/11 and EPS 1/RM/14] Daphnia LC50 (48hr)

	Daphnia Single Concentration (48hr)
BBY2SOP-00009	Echinoid 20 Minute Fertilization Test [EPS 1/RM/27] Echinoderm Fertilization (20 min)
BBY2SOP-00053	Lemna minor 7 Day Growth Inhibition Test [EPS 1/RM/37] Lemna minor (7d)
BBY2SOP-00061	Rainbow Trout Acute Survival Test with pH Stabilization [EPS 1/RM/50] Single Concentration (96hr) - pH Stabilization Trout LC50 (96hr) - pH Stabilization

FORENSICS

Forensic Equine Drug Testing

Description of Activities:
(Drugs in Horse Hair, Urine and Blood)

1.Screening and confirmatory analysis for drugs and metabolites in equine body fluids, including quantification where required.

2.Testing of known and unknown substances including powders, liquids, dosage forms, feeds, drug administration paraphernalia and other materials for the presence of drugs, using in-house validated methods incorporating the following techniques:

Techniques for which laboratory is accredited:

a. High-performance liquid chromatography
b. Immunoassay
c. Mass spectrometry
d. Sample preparation, extraction and general chemical tests

Notes:

(Medical Gases Piping Systems)

The Medical Gas Piping System inspection portion of Bureau Veritas' scope of accreditation has recently been transferred to SCC's Inspection Body program. A scope listing may be found at:
https://www.scc.ca/en/accreditation/programs/inspection-bodies/directory

ISO/IEC 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories

RG FORENSIC: SCC Requirements and Guidance for the Accreditation for Forensic Testing Laboratories

BBY2SOP: Laboratory Standard Operating Procedures.

Standards Council of Canada
Conseil canadien des normes

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at www.scc.ca.

Elias Rafoul
Vice President, Accreditation Services
Publication on: 2021-04-23

Appendix 3-G: Bureau Veritas (Calgary) Scope of Accreditation

PEACE RIVER
HYDRO PARTNERS

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Accredited Laboratory No. 836

Legal Name of Accredited Laboratory:	**Bureau Veritas Canada (2019) Inc. (Formerly Maxxam Analytics)**
Location Name or Operating as (if applicable):	Bureau Veritas Calgary
Contact Name:	Pantea Niksirat
Address:	2020-41st Avenue, N.E., Calgary AB R2E 6P2
Telephone:	+1-403 735-2271
Fax:	+1-403-291-9468
Website:	www.bvna.com
Email:	Calgary-QA-Staff-AB@bureauveritas.com

SCC File Number:	151043
Accreditation Standard(s):	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
Fields of Testing:	Biological Chemical/Physical
Program Specialty Area:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Environmental Testing (ET)
Initial Accreditation:	2016-08-30
Most Recent Accreditation:	2021-04-15
Accreditation Valid to:	2024-08-30

SCC Group Accreditation:
This laboratory is a part of a Group Accreditation with the following facilities in accordance with SCC's policy on Group Accreditation documented in the Accreditation Services Accreditation Program Overview.

15229 - Bureau Veritas Canada (2019) Inc. (Formerly Maxxam Analytics) - 6744 - 50 Street NW, Edmonton, AB, T6B 3M9, Accredited Laboratory No. 160
151039 - Bureau Veritas Canada (2019) Inc. (Formerly Maxxam Analytics) - Unit D, 675 Berry St., Winnipeg, MB, R3H 1A7, Accredited Laboratory No. 837

Testing is performed at the following locations:

Air testing: #1 2080-39th Avenue N.E. Calgary, AB. T2E 6P7
Inorganic, organic chemistry and water microbiology: 4000-19 Street N.E Calgary, AB T2E 6P8 and #3-4 2080-39th Avenue N.E. Calgary, AB. T2E 6P7, and 2021 – 41 Avenue NE, Calgary, AB T2E 6P2
Food testing: #112, 3442-118 Ave S.E. Calgary, AB T2Z 3X1.

* These test methods can be performed on-site as per RG-On-Site-Testing.

ANIMAL AND PLANTS (AGRICULTURE)

Foods and Edible Products (Human and Animal Consumption):

(Microbiology)

Assurance GDS ® MPX Top 6 STEC Assay	Assay BioControl Assurance GDS ® MPX Top 6 STEC
Assurance GDS ® MPX Top 7 STEC Assay	BioControl Assurance GDS ® MPX Top 7 STEC
MFHPB-10	Isolation of Escherichia coli O157:H7/NM from foods and environmental surface samples
MFHPB-18	Determination of Aerobic Colony Counts in Foods
MFHPB-20	Isolation and Identification of *Salmonella* from Food and Environmental Samples
MFHPB-22	Enumeration of Yeast and Moulds in Foods
MFHPB-30	Isolation of *Listeria monocytogenes* and *Listeria* spp. from foods and environmental samples
MFHPB-33	Enumeration of Total Aerobic Bacteria in Food Products and Food Ingredients Using 3M™ Petrifilm™ Aerobic Count Plates
MFHPB-34	Enumeration of *Escherichia coli* and Coliforms in Food Products and Food Ingredients Using 3M™ Petrifilm™ *E. coli* Count Plates
MFLP-09	Enumeration of *Enterobacteriaceae* species in Food and Environmental Samples Using 3M™ Petrifilm™ *Enterobacteriaceae* Count Plates
MFLP-16	Detection of *Escherichia coli* O157:H7 in foods - Assurance GDS® for *E. coli* O157:H7 Tq Gene Detection System
MFLP-21	Enumeration of *Staphylococcus aureus* in Foods and Environmental Samples Using 3M™ Petrifilm™ *Staph.* Express Count (STX) Plates
MFLP-28	The Qualicon Bax® System Method for the Detection of *Listeria monocytogenes* in a Variety of Food.

MFLP-29	The BAX® System Method for the detection of Salmonella in foods and environmental surface samples.
MFLP-30	Detection of *Escherichia coli* O157:H7 in Select Foods using the BAX® System *E. coli* O157:H7 MP.
MFLP-36	Detection of *Salmonella* in Foods and Environmental Surface Samples-Assurance GDS® for *Salmonella* Tq Genetic Detection System
MFLP-54	Detection of *Listeria monocytogenes* from selected foods using iQ-Check™ *Listeria monocytogenes* Real-Time PCR Test Kit
MFLP-74	Enumeration of *Listeria monocytogenes* in foods
MFLP-79	Detection of *Listeria* spp. in Environmental Surface Samples using the BAX®System Real-Time PCR Assay for *Listeria* genus
MLG4	Isolation and Identification of *Salmonella* from Meat, Poultry, Pasteurized Egg and Siluriformes (fish) Products and Carcass and environmental sponges
MLG41	Isolation and Identification of *Campylobacter jejuni/coli/lari* from Poultry Rinse, Sponge and Raw Product Samples

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental:

Soil/Solid/Waste

AB SOP-00045	Specific Gravity (Modified SM 2710 F, MSSMA 2.25, and Petroleum and Natural Gas Industries- Field Testing of Drilling Fluids NS SM-2710F – water inorganic) Gravimetric Specific Gravity
AB SOP-00047	Free Liquid (Paint Filter Test) (Modified EPA 9095 B) Volumetric Free Liquid in Waste Samples

Water

AB SOP-00011	Silica (Reactive) by Konelab - Molybdate/ANSA Reduction Method (Modified EPA 370.1] Colorimetric Reactive Silica
*AB SOP-00016	Chemical Oxygen Demand (Total and Dissolved) (Modified SM 5220 D) Colorimetric COD

AB SOP-00017	Biochemical Oxygen Demand (Modified SM 5210 B) D.O. Meter BOD (5 day) CBOD (5 day)
AB SOP-00024	Total Phosphorus by Konelab - Ascorbic Acid Reduction Method (Modified from SM 4500-P, A, B, F) Colorimetric Inorganic phosphorus Total Phosphorus
AB SOP-00032	The Determination of Residual Chlorine in Waters (Modified SM 4500 C1G) Colorimetric Free Chlorine Total Chlorine
AB SOP-00041	Ferrous and Ferric Iron in Water-Colorimetric Determination (Modified SM 3500-Fe A, B) Colorimetric Ferrous Iron
AB SOP-00058	Dissolved Oxygen- Modified Winkler Method (Modified SM 4500-O C) Titrimetric Dissolved Oxygen
AB SOP-00060	Naphthenic Acids in water by FTIR (Modified EPA 3510C R3/FTIR) IR Naphthenic Acids
*AB SOP-00061	Total Suspended Solids, Total Fixed Solids, Total Volatile Solids (Modified SM 2540 D, E) Gravimetric Total Suspended Solids Total Suspended Solids Fixed Total Suspended Solids Volatile
AB SOP-00065	Total Dissolved Solids [Modified SM 2540 C] Gravimetric Total Dissolved Solids
AB SOP-00070	Extraction and Analysis of Naphthenic Acids in Water (DCM Extraction) [Modified from Syncrude 1995 m] IR DCM Extraction Naphthenic Acids
AB SOP-00084	Mercury in Waters, Leachates and Liquids by Bromination and Cold Vapour

	[Modified BC MOE LABORATORY MANUAL SECTION C and EPA 245.7] Mercury
AB SOP-00087	Organic Carbon by Technicon - Persulfate UV Oxidation (Modified Methods Manual for Chemical Analysis of Water and Wastes, Method Code 119) Colorimetric Organic Carbon
AB SOP-00092	Oil and Grease Water Analysis by Gravimetric Hexane Extraction Method (Modified SM 5520 B, Gravimetric) Total Oil and Grease Total Petroleum Hydrocarbons (TPH)
CAL SOP-00040	Bromate, Chlorate, Chlorite by IC – Conductivity detection (Modified SM 4110 D) Ion Chromatography Bromate Chlorate Chlorite
CAL SOP-00049	Colour by Konelab (Modified SM 2120C) Spectrophotometric Apparent colour True Color
CAL SOP-00055	Volatile Organic Acids (Modified from Dionex ICE-AS6 DOC NO 34961) Ion Chromatography Glycolic Acid Lactic Acid
CAL SOP-00057	Iodide/Thiocyanate/Thiosulfate (Modified DIONEX, DOC NO 034035) Ion Chromatography Iodide Thiocyanate Thiosulfate
CAL SOP-00063	Volatile Organic Acids (Modified DIONEX ICE-AS1 DOC NO 031181) Ion Chromatography Acetic Acid Butyric Acid Formic Acid Propionic Acid
CAL SOP-00065	Oxalic Acid by Ion Chromatography - Conductivity Detection (Modified from SM 4110B)

	Ion Chromatography Oxalic Acid
CAL SOP-00071	Sulphite by IC (Modified SM 4110 B) Ion Chromatography - Conductivity Detector Sulfite
CAL SOP-00076	Total and Dissolved Inorganic Carbon by Automated Colourimetry (Modified AE 2411) - Water Inorganic Carbon
CAL SOP-00081	Turbidity – Nephelometric Method (Modified SM 2130 B) Nephelometric Turbidity
CAL SOP-00099	Extraction and analysis of Resin and Fatty Acids in water by GCMS (Modified AE 129.0 and EPA 8270E) GC/MS 12,14-Dichlorodehydroabietic Acid 12-Chlorodehydroabietic Acid 14-Chlorodehydroabietic Acid 9,10-Dichlorostearic Acid (C18) Abietic Acid Decanoic Acid C10 Dehydroabietic Acid Docosanoic Acid C22 Docosanoic Acid C12 Eicosanoic Acid C20 Hexadecanoic Acid C16 Isopimaric Acid Linoleic Acid C18:2 Linoleic Acid C18:3 Neoabietic Acid Octadecanoic Acid C18 Oleic Acid C18:1 Palustric Acid Pimaric Acid Sandaracopimaric Acid Tetradecanoic Acid (C14) Undecanoic Acid (C11) Total of Resin Acids Total of Fatty Acids
CAL SOP-00273	Determination of Chlorophyll and Pheophytin (Modified SM 23 10200 H) Chlorophyll A Chlorophyll B Chlorophyll C Pheophytin

Emissions (Air)

EMS SOP-00009	Sorbent traps for the determination of Mercury Emissions (Field) (Modified US EPA Method 30B) Spectrometer - Atomic Absorption Detector Mercury (Hg)

EMS SOP-00110	Anions-Water (Modified Methods Manual for Chemical Analysis of Atmospheric Pollutants method 52121) Ion Chromatography - Conductivity Detector Chloride Fluoride Nitrate Sulfate
EMS SOP-00111	Ammonia – Water (Modified Methods Manual for Chemical Analysis of Atmospheric Pollutants method 52626] Ion Chromatography - Conductivity Detector Ammonia
EMS SOP-00112	Fixed Gases - Air (Modified Method 3, Alberta Stack Sampling Code, 1995, Publication Number: REF.89 and EPA 3C) GC/TCD CO CO_2 N_2 O_2
EMS SOP-00113	Formaldehyde – Water (Modified from Methods Manual for Chemical Analysis of Atmospheric Pollutants, method 12525) Colorimetric Formaldehyde
EMS SOP-00114	Hydrocarbons – Air (Modified AENV18] GC/FID Total Hydrocarbons as Methane
EMS SOP-00115	Total Particulates - Air Filter (Modified method 5, Determination of Particulate Emissions from Stationary Sources, Alberta Stack Sampling Code, 1995, Publication Number: REF.89] Gravimetric Particulates
EMS SOP-00116	Total/Trace Reduced Sulfur - Air (Field) [Modified from AENV.TRS.P&P-1 and AENV.TRS.SGP-1] GC/PID Carbon disulfide Carbonyl sulfide Dimethyl disulfide Dimethyl sulfide Hydrogen sulphide Methyl mercaptan

EMS SOP-00122	Chlorine and Chlorine Dioxide – Air (Field) [Modified Alberta Environment Stack Code, 1995, Publication Number REF 89] Iodometric Determination Chlorine Chlorine Dioxide

Soil/Solid

*AB SOP-00002	Moisture Content in Soil [Modified CCME Petroleum Hydrocarbons in Soil - Tier 1 Method Section 13] Gravimetric % Moisture
*AB SOP-00003	Analysis of PAH in Water, Soil, Oil and Leachates by GC/MS [Modified EPA 8270E, EPA 3540C, EPA 8270E] - Soils and water 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Acridine Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b, j) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Benzo(c)phenanthrene Benzo(e)pyrene Chrysene Dibenzo (a,h) anthracene Fluoranthene Fluorene Indeno (1,2,3 - cd) pyrene Naphthalene Perylene Phenanthrene Pyrene Quinoline
*AB SOP-00004	Determination of Electrolytic Conductivity by Manual Meter (Modified SM 2510B - Soils and waters Conductivity Meter (Manual) Conductivity
AB SOP-00005	Alkalinity Conductivity Fluoride and pH by PC-Titrate (Modified SM 2510 B, SM 4500 H+B, SM 2320 B, SM 4500-F C) - Soil & Waters PC Titrate Conductivity (25 °C) Alkalinity Fluoride pH Acidity
*AB SOP-00006	pH by Manual Meter (Modified from SM 4500-H+ B) pH Meter

	pH
*AB SOP-00007	Ammonia-Nitrogen by Konelab - Phenate colorimetric method (Modified SM4500-NH3 A&G) Colorimetric Ammonia Ammonia – Extraction
AB SOP-00008	TKN by Konelab (Modified EPA 351.1, EPA 351.2) Colorimetric Total Kjeldahl Nitrogen
AB SOP-00012	Total Organic Carbon and Organic Matter in Soil (Modified Methods Manual for Soil and Plant Analysis) Reflux – Titrimetric Organic Matter – Calculation Total Organic Carbon
AB SOP-00019	Calcium Carbonate Equivalence by pH (Modified SSMA 20.2) pH Meter Calcium Carbonate Equivalence (CCE)
AB SOP-00020	Chloride and Sulfate Analysis by Discrete Autoanalyzer (Modified SM 4500 Cl E & SM 4500 SO4 E) Chloride *Sulfate
AB SOP-00022	Particle Size Distribution by Sieve Analysis (Modified ASTM D6913) Gravimetric/SIEVE Grain size Particle size by sieve (Special)
AB SOP-00023	Nitrite and Nitrate by Ion Chromatography (Modified SM 4110 B) – Soil and Waters Ion Chromatography Nitrate Nitrite
AB SOP-00025	Ortho-phosphate by Konelab - Ascorbic Acid Reduction Method (Modified SM 4500-P, A and F) Colorimetric Auto Color Ortho-phosphate
*AB SOP-00026	Chloride, Sulphate and Bromide by Ion Chromatography (Modified SM 4110B] Ion Chromatography Chloride Sulfate

AB SOP-00030	PSA by Hydrometer - Texture (Sand, Silt, Clay and gravel) Analysis (Modified SSMA 55.3) Hydrometer % clay % gravel % sand % slit
*AB SOP-00033	Preparation of Saturation and Water-Soil Ratio Samples [Modified from SSMA Method 15.2] Gravimetric % Saturation
AB SOP-00039	Extraction and Analysis of BTEX/F1 and select Volatiles by HS/GC/MS/FID Water, Soil and Oil (BTEX: Modified EPA 8260D, GC/MS – HEADSPACE) (F1/PHC: Modified CCME Petroleum Hydrocarbons - Tier 1 Method and EPA5021A) (BTEX TCLP: EPA 1311) GC/MS - HEADSPACE 1,2,4-Trimethyl Benzene Benzene C5-C10 Ethylbenzene F1: C6-C10 Hexane m/p-xylene Methyl tert-butyl ether (MTBE) o-xylene Styrene Toluene
*AB SOP-00040	Analysis of Extractable Hydrocarbons in Water and Soils by GC/FID (Modified Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil – Tier 1 Method) Modified EPA 1617)- Sheen C6-C50 Hydrocarbons F2 (C10-C16 Hydrocarbons) F3 (C16-C34 Hydrocarbons) F3A (C16-C22 Hydrocarbons) F3B (C22-C50 Hydrocarbons) F4 (C34-C50 Hydrocarbons) Reached Baseline at C50 F4G-SG (Heavy Hydrocarbons-Grav) Total Extractables C10 to C30 Total Extractables C10 to C22 Total Extractables C23 to C60 F4 HTG (>C34 – High Temp GC) Total Petroleum Hydrocarbon Visible Sheen
*AB SOP-00042	Metals on Liquids and Solids by ICP/OES (Modified EPA 6010 D) ICP/OES Aluminum Barium Boron Calcium Chromium Iron Lithium Magnesium Manganese Phosphorus Potassium Silicon Sodium Strontium Sulfur Thorium
*AB SOP-00043	Metals Analysis on Soils and Waters Using ICPMS (Modified EPA 6020 B) - Soils and Waters

	[TCLP: EPA 1311] ICP/MS Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Palladium Potassium Selenium Silicon Silver Sodium Strontium Sulphur Tellurium Thallium Tin Titanium Tungsten Uranium Vanadium Zinc Zirconium
AB SOP-00049	Particle Size Distribution by Hydrometer (Modified ASTM D422-63) Hydrometer Particle Size Distribution
AB SOP-00050	Dry Bulk Density and Wet Bulk Density 9Modified McKeague and MSSMA Section 2.21) Gravimetric Bulk Density
AB SOP-00052	Bromide by Ion Chromatography - UV Detection (Modified from SM 4110 B) Ion Chromatography/UV Detector Bromide
AB SOP-00056	Preparation and Analysis VOC -Water and Soil by HS/GC/MS (Modified from EPA8260D and EPA5021A) (VOC TCLP: EPA 1311) GC/MS (Headspace) 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-dichloroethylene 1,2 dibromoethane 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-dichlorobenzene 1,2-dichloroethane 1,2-Dichloropropane 1,3,5 Trichlorobenzene 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene 1,4-dichlorobenzene Benzene Bromodichloromethane Bromoform Bromomethane Carbon Tetrachloride Chlorobenzene Chlorodibromomethane Chloroethane Chloroform Chloromethane cis-1,2-Dichloroethylene

	cis-1,3-Dichloropropene Ethylbenzene Methyl methacrylate o-xylene Tetrachloroethylene trans-1,2-Dichloroethylene Trichloroethylene Vinyl Chloride	Dichloromethane m/p-xylene Methyl t-butyl ether Styrene Toluene trans-1,3-Dichloropropene Trichlorofluoromethane
AB SOP-00062	Flashpoint by Small Scale Closed Cup Tester (SetaFlash) (Modified ASTM D3828) Seta Flash Closed Cup Flashpoint	
AB SOP-00063	Hexavalent Chromium by Konelab (Modified SM 3500-Cr B) Colorimetric Hexavalent Chromium	
AB SOP-00067	Elemental Sulfur (Modified Canadian Journal of Soil Science, 65, Pages 811-813, 1985) Colour-Extraction Elemental Sulphur	
* AB SOP-00071	Electrical Conductivity by Manual Meter - On-Site Testing (Modified SM 2510 B) Conductivity Meter Conductivity (25 °C)	
* AB SOP-00073	Determination of Percent Moisture - On-Site Testing (Modified CCME PHC-CWS] Gravimetric % Moisture	
* AB SOP-00074	Determination of pH in Water and Soil by Manual Meter - On-Site Testing (Modified SM 4500H+ B) pH Meter pH	
* AB SOP-00075	Preparation of Saturation Samples - On-Site Testing (Modified from SSMA Method 15.2) Gravimetric % Saturation	
*AB SOP-00076	BTEX/F1 in Water and Soil by GC Headspace PID/FID - On-Site Testing (BTEX: Modified EPA 8021B] – GC/PID - Headspace (F1: CCME Hydrocarbons Tier 1, BCMOE Section D, BCMELP] - GC/FID – Headspace) Benzene	C6 o-xylene

	Ethylbenzene m/p-xylene O-xylene-C10 Toluene	F1:C6-C10 o-xylene Styrene Total C6-C10
*AB SOP-00077	Extractable Hydrocarbon in Water and Soil - On-Site Testing (Modified CCME hydrocarbons Analysis tier 1, BCMOE Section D, BCMELP] GC/FID - Direct Injection EPH (C10-C19) F2: C10-C16 F4: C34-C50	 EPH (C19-C32) F3: C16-C34 TEH (C10-C30)
*AB SOP-00078	Chloride Analysis by Hach DR2800 - On-Site Testing (Modified SM 4500-ClE) Colorimetric Chloride	
AB SOP-00080	Sulphide, Low level (Modified SM 4500-S2D, A, F) Colorimetric Sulphide	
AB SOP-00088	Phenolics-Automated 4-AAP Colorimetry (Modified SSMA Chapter 40 & EPA 9066) Colorimetric – Distillation Extraction Phenol	
AB SOP-00091	NO_2 and TON by Gallery Plus (Modified SM 4500-NO3-H) Nitrite Total Oxidized Nitrogen (TON)	
AB SOP-00093	Total Nitrogen by Konelab (Modified SM 4500-N C) – Soil and Water Colorimetric Total Nitrogen (water) Total Nitrogen (Dissolved, water) Total Nitrogen (Soluble, soil) Total Nitrogen (Available, soil)	
CAL SOP-00032	Spontaneous combustion (Self Heating) (Modified Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria. Sixth Revised edition. United Nations.2015 sections 33.3.1.3 and 33.3.1.6) Combustion Spontaneous Combustion	
CAL SOP-00054	Ethanolamines and DIPA by reversed-phase chromatography (amperometry) (Modified IC US6-0193-062014) – Soil and Water Diethanolamine (DEA) Methyldiethanolamine (MDEA) Monoethanolamine (MEA) Diisopropanolamine (DIPA)	

	Triethanolamine (TEA) – Water only 2-(2-Aminoethoxy)-ethanol (DGA) – Water only
CAL SOP-00093	Preparation and Analysis of Glycols and Sulfolane in Water, Soil and oil by GC-FID (Modified from EPA 8015D) GC/FID – Extraction Diethylene Glycol — Ethylene Glycol Propylene Glycol — Sulfolane Tetraethylene Glycol — Triethylene Glycol
CAL SOP-00094	Herbicides (Modified EPA 8151A and EPA 8270E) GC/MS – Extraction 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) 2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) 2,4-Dichlorophenoxyacetic acid (2,4-D) 2,4-Dichlorophenoxybutyric acid (2,4-DB) 3,5-Dichlorobenzoic Acid Bentazon — Bromoxynil Chloramben — Dicamba Dichlorprop — Diclofop-methyl Dinoseb (DNBP) — MCPA MCPP — Pentachlorophenol Picloram
CAL SOP-00096	Extraction and Analysis of OG and TPH in Water and Soil by FTIR (Modified SM 23 5520 C m) IR – Extraction Oil and Grease Total Petroleum Hydrocarbons
CAL SOP-00104	Preparation and Analysis of Extended VOC in Water and Soils by HS/GC/MS (Modified EPA 8260D, EPA 5021A &VOC TCLP: EPA 1311) GC/MS – HS/Extraction 1,2,3-trichloropropane — 1,1-dichloropropene 1,2-dibromo-3-chloropropane — 1,3-dichloropropane 2,2-dichloropropane — 2-butanone (MEK) 2-chlorotoluene — 2-hexanone 2-nitropropane — 4-chlorotoluene 4-methyl-2-pentanone (MIBK) — Acetone Acetonitrile — Acrolein Acrylonitrile — Bromobenzene Bromochloromethane — Carbon disulphide Cyclohexane — Cyclohexanone Dibromomethane — Dichlorodifluoromethane

	Dicyclopentadiene	Ethyl acetate
	Ethyl ether	Ethyl methacrylate
	Hexachlorobutadiene	Hexane
	Iodomethane	Isopropylbenezene
	Naphthalene	n-Butylbenzene
	Nitrobenzene	n-Propylbenzene
	p-Isopropyltoluene	sec-Butylbenzene
	tert-Butylbenezene	
CAL SOP-00149	Polychlorinated Biphenyls (PCB) (Modified EPA 8082A) GC/ECD – Extraction	
	Aroclor 1016	Aroclor 1221
	Aroclor 1248	Aroclor 1254
	Aroclor 1268	Total PCB
CAL SOP-00164	Semi Volatile Phenols (Modified EPA 8270E) GC/MS – Extraction	
	2,3,4,5-tetrachlorophenol	2,3,4,6-tetrachlorophenol
	2,3,4-trichlorophenol	2,3,5,6-tetrachlorophenol
	2,3,5-trichlorophenol	2,3,6-trichlorophenol
	2,3-dichlorophenol	2,4,5-trichlorophenol
	2,4,6-trichlorophenol	2,4-dichlorophenol
	2,4-dimethylphenol	2,4-dinitrophenol
	2,5-dichlorophenol	2,6- dimethylphenol
	2,6-dichlorophenol	2-chlorophenol
	2-methylphenol	2-nitrophenol
	3&4-chlorophenol	3&4-methylphenol
	3,4,5-trichlorophenol	3,4-dichlorophenol
	3,4-dimethylphenol	3,5-dichlorophenol
	4,6-dinitro-2-methylphenol	4-chloro-3-methylphenol
	4-nitrophenol	Pentachlorophenol
	Phenol	
CAL SOP-00184	Aliphatic and Aromatic fractionation and analysis for >C10-C50 PHC (Modified from Atl RBCA m) GC/FID	
	>C10-C12 Aliphatic	>C10-C12 Aromatic
	>C12-C16 Aliphatic	>C12-C16 Aromatic
	>C16-C21 Aliphatic	>C16-C21 Aromatic
	>C21-C34 Aliphatic	>C21-C34 Aromatic
	>C34 Aliphatic (Up to C50)	>C34 Aromatic (Up to C50)
CAL SOP-00239	BC Extractable Petroleum Hydrocarbons in Water and Soil by GC/FID (Modified BCMOE EPH S 12/16) GC/FID	
	EPH: C10-C19	

	EPH: C19-C32
CAL SOP-00240	Fractionation for C6-C10 and BC method VPH by Headspace GC/FID/MS (Modified volatile HC in soils by GC/FID and EPA method 5021A, BC MELP VH; Atl. RBCA) GC/FID Benzene C6-o-xylene Ethylbenzene o-xylene Styrene C6-C8 C8-C10 aromatic Methyl-ter-butylether o-xylene-C10 Toluene
CAL SOP-00243/CAL SOP-00263	Carbon, Nitrogen and Sulfur (Modified LECO Corporation Form No. 203-821-170,203-821-165 and Vario El Cube No AN-A-030609, Total Organic Carbon (TOC/FOC) in soil/sediment by combustion (PBM)] IR Combustion Carbon Nitrogen Organic Carbon Sulphur
CAL SOP-00250	Preparation and analysis of Alkylated PAH in soils and water (Modified SM 8270 E and ESTD-OR-20) GC/MS – Extraction 1-Methylnaphthalene Acenaphthene Acridine Benzo (a) anthracene Benzo (g,h,i) perylene Benzo (b&j) fluoranthene Benzo(e)pyrene 2-Methylnaphthalene Acenaphthylene Anthracene Benzo (a) pyrene Benzo (k) fluoranthene Benzo(c)phenanthrene Biphenyl C1-Acenaphthene C1-Benzo(bjk)fluoranthene / Benzo[a]pyrene C1-Biphenyl Chrysene C1-Dibenzothiopene C2-Naphthalene C2- Fluoranthene / Pyrene Chrysene C3-Dibenzothiophene C3-Naphthalene C3- Fluoranthene / Pyrene Chrysene C1-Benzo(a) anthracene/ C2-Fluorene C2-Phenanthrene/ anthracene C3-Benzo(a)anthracene / C3-Fluorene C3-Phenanthrene/ anthracene C4- Benzo(a)anthracene /

	C4-Dibenzothiophene	C4-Naphthalene
	C4-Phenanthrene/ anthracene	Chrysene
	Dibenzo (a,h) anthracene	Dibenzothiophene
	Fluoranthene	Fluorene
	Indeno (1,2,3 - cd) pyrene	Indeno (1,2,3-cd) fluoranthene
	Naphthalene	Perylene
	Phenanthrene	Pyrene
	Quinoline	Retene
CAL SOP-00251	Extraction and analysis of low level Sulfolane in water and soil by GCMS (Modified EPA 8270E) GC/MSD – Extraction Sulfolane	
CAL SOP-00264	Preparation and Analysis of Alcohol/Solvents (Water, soil, oil) by GCFID (Modified EPA 8015D) – GC/FID – Extraction	
	2-Methylphenol	3- Methylphenol
	4- Methylphenol	Acetone (2-propanone)
	Ethanol	Isobutanol
	Isopropanol	* Methanol
	n-butanol	Pyridine
CAL SOP-00265	ICP/MS Analysis for Low Level Metals (Modified EPA SW846 6020B) ICP/MS	
	Aluminum	Antimony
	Beryllium	Bismuth
	Calcium	Cesium
	Copper	Iron
	Lithium	Magnesium
	Molybdenum	Nickel
	Rubidium	Selenium
	Sodium	Strontium
	Thallium	Thorium
	Tungsten	Uranium
	Zirconium	
	Arsenic	Barium
	Boron	Cadmium
	Chromium	Cobalt
	Lanthanum	Lead
	Manganese	Mercury
	Phosphorus	Potassium
	Silicon	Silver
	Sulphur	Tellurium
	Tin	Titanium
	Vanadium	Zinc
CAL SOP-00266	Free Cyanide (Modified EPA 9016) Colorimetric- Distillation Free cyanide	
CAL SOP-00270	Determination of cyanide by automated colourimetry (Modified SM 23 4500-CN-,O) Colorimetric- Distillation Cyanide SAD Cyanide WAD	

CAL SOP-00275	Extraction and Analysis of Hydroxyphenols in Water and Soil by GCMS (Modified BC MOE Laboratory Manual and EPA SW 846 8270) 2-Hydroxyphenol (Catechol) 3-Hydroxyphenol (Resorcinol) 4-Hydroxyphenol (Hydroquinone)

Water (Microbiology)

AB SOP-00085	Determination of Iron-Related and Sulfate Reducing Bacteria using the BART Method (Modified Dbi Env Tech Verification of the Irb Bart Tester for the Detection and Evaluation of Iron Bacteria in Water and Dbi Enviro Tech Verification of the Srb Bart Tester for the Detection and Verification of Sulphate Reducing Bacteria in Water) BART™ Iron Related Bacteria (IRB) Sulfate Reducing Bacteria (SRB)
AB SOP-00089	Total and Fecal Coliforms by defined substrate technique (Modified SM 9223 A, B) Most Probable Number (Colilert) *Escherichia coli* (*E. coli*) Total Coliforms Fecal (Thermotolerant) Coliforms
CAL SOP-00012	Heterotrophic Plate Count (HPC) (Modified SM 9215 A, B) Pour Plate Heterotrophic Plate Count (HPC)

Number of Scope Listings: 117

Notes:

ISO/IEC 17025:2017: General Requirements for the Competence of Testing and Calibration Laboratories

MFHPB: Microbiological Foods Health Protection Branch, Health Canada

MFLP: Microbiological Food Laboratory Procedure, Health Canada

MLG: Food Safety and Inspection Services Microbiology Laboratory Guidebook, U.S. Department of Agriculture

SM: Standard Methods for Examination of Water and Wastewater, American Public Health Association (APHA)

EPA: Environment Protection Agency

TCLP: toxicity characteristic leaching procedure

AB SOP: Internal test method (Alberta)

CAL SOP: Internal test method (Calgary)

CCME: Canadian Council of Ministers of the Environment

* These test methods can be performed on-site as per RG-On-Site-Testing.

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