KEMESS 2025
NITRATE MANAGEMENT PLAN
MONITORING PROGRAM

Prepared for:

AURICO METALS INC. – KEMESS MINE
1 UNIVERSITY AVENUE, SUITE 1800
TORONTO, ON
CANADA M5J 2P1
T: (416) 204-1953

Prepared by:

HATFIELD CONSULTANTS LLP
#200 - 850 HARBOURSIDE DRIVE
NORTH VANCOUVER, BC
CANADA V7P 0A3
TEL: 1.604.926.3261 • WWW.HATFIELDGROUP.COM
Canadian and owner-operated

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LIST OF ACRONYMS

AFDW	Ash-free Dry Weight
ANOVA	Analysis of Variance
AuRico	AuRico Metals Inc.
BC ENV	British Columbia Ministry of Environment and Parks
BC MOE	British Columbia Ministry of Environment (former name)
BC WQG FAL	British Columbia Water Quality Guidelines for the Protection of Aquatic Life
BEAST	BEnthic Assessment of SedimenT
CABIN	Canadian Aquatic Biomonitoring Network
CCME	Canadian Council of Ministers of the Environment
D	Simpson's Diversity Index
didymo	*Didymosphenia geminata*
DQO	Data Quality Objective
E	Evenness
ECCC	Environment and Climate Change Canada
EDD	Eastern Diversion Ditch
EMA	*Environmental Management Act*
EPT	*Ephemeroptera, Plecoptera, Trichoptera*
FAEMP	Fish and Aquatic Effects Monitoring Program
HBI	Hilsenhoff Biotic Index
IAS	Interim Attainment Schedule
IDZ	Initial Dilution Zone
KS	Kemess South
KUG TSF	Kemess Underground Tailings Storage Facility (former KS open pit)
LPL	Lowest Practical Level
NAG WRSF	Non-Acid Generating Waste Rock Storage Facility
NMP	Nitrate Management Plan
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance and Quality Control
RCA	Reference Condition Approach
RPD	Relative Percent Difference
SCSP	Southern Collection System Pond
SOP	Standard Operating Procedure
TOC	Total Organic Carbon
UTM	Universal Transverse Mercator
WCSP	Western Collection System Pond
WDD	Western Diversion Ditch

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EXECUTIVE SUMMARY

This report presents results of the 2025 Nitrate Management Plan (NMP) Monitoring Program conducted at the Kemess Mine. The 2025 program was the first cycle of the revised NMP, that was approved in summer 2025, but was the sixth year of monitoring to assess the physical (water) and biological (periphyton and benthic invertebrate) conditions of aquatic environments within and near the footprint of the Kemess South (KS) Mine to determine potential impacts of nitrate associated with seepage from the Non-Acid Generating Waste Rock Storage Facility (NAG WRSF), and to support the implementation of adaptive management and mitigation strategies, if required. Potential effects were evaluated through temporal and spatial comparisons of water, periphyton, and benthic invertebrate data collected at upstream background, infrastructure, and receiving environment stations.

Nitrate concentrations in the Waste Rock Creek catchment were low and stable in 2025. Water management and seepage interception have greatly reduced nitrate loading. Periphyton and benthic invertebrate communities in the receiving environment were not substantively altered due to exposure to nitrate. Nitrate concentrations were greater than water quality guidelines at WR-S4 throughout 2025, but WR-S4 does not discharge directly to the environment (it flows to the Southern Collection System Pond that is pumped to the Kemess Underground Tailings Storage Facility). No other observations of nitrate greater than guidelines were observed in 2025. No evidence for nitrate-related effects to aquatic receptors were observed in 2025. Compiled together, the results of the 2025 nitrate monitoring program suggested that effects of mine activities through the studied pathways are insignificant.

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This report has been issued and amended as follows:

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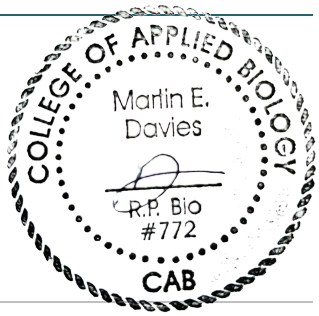
1	First version of Kemess 2025 Nitrate Management Plan Monitoring Program	20260331		
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1.0 INTRODUCTION

The Kemess Mine is located in north-central British Columbia, 430 kilometers northwest of Prince George in the Peace River Regional District. AuRico Metals Inc. (AuRico) is a wholly owned subsidiary of Centerra Gold, which operates the Kemess property. The closest communities to the Project by air are Kwadacha (also known as Fort Ware; 79 km), Tsay Keh (111 km), and Takla Landing (182 km). The Kemess South (KS) complex consists of an open pit mine, a processing mill and various ancillary support facilities, maintenance shops and housing for 400 employees. The KS Mine ceased operations in 2011. The Kemess Underground (KUG) Project is an approved 37,500-tonne-per-day copper and gold mine with a 17-year mine life. The KUG Project is designed to utilize the existing KS facilities, as well as newly constructed infrastructure. Construction of KUG began in 2018. In 2020, construction of the KUG project was paused and Kemess Mine was put into Care and Maintenance.

This report presents and interprets the data collected during the 2025 Nitrate Monitoring Program to support Kemess' Nitrate Management Plan (NMP). The NMP monitoring program evaluates potential effects of nitrate concentrations in Waste Rock Creek resulting from leachate generated from the Non-Acid Generating Waste Rock Storage Facility (NAG WRSF). This monitoring program includes sampling of water, periphyton, and benthic invertebrates in waterbodies within and near the KS Mine footprint. The overall objectives of the nitrate management monitoring program are to:

- Evaluate the performance of the on-site water management system to identify trends or new seeps of concern;
- Monitor for changing conditions in the aquatic environment due to nitrate loading; and
- Assess whether adaptive management and mitigation strategies outlined in the Nitrate Management Plan require implementation.

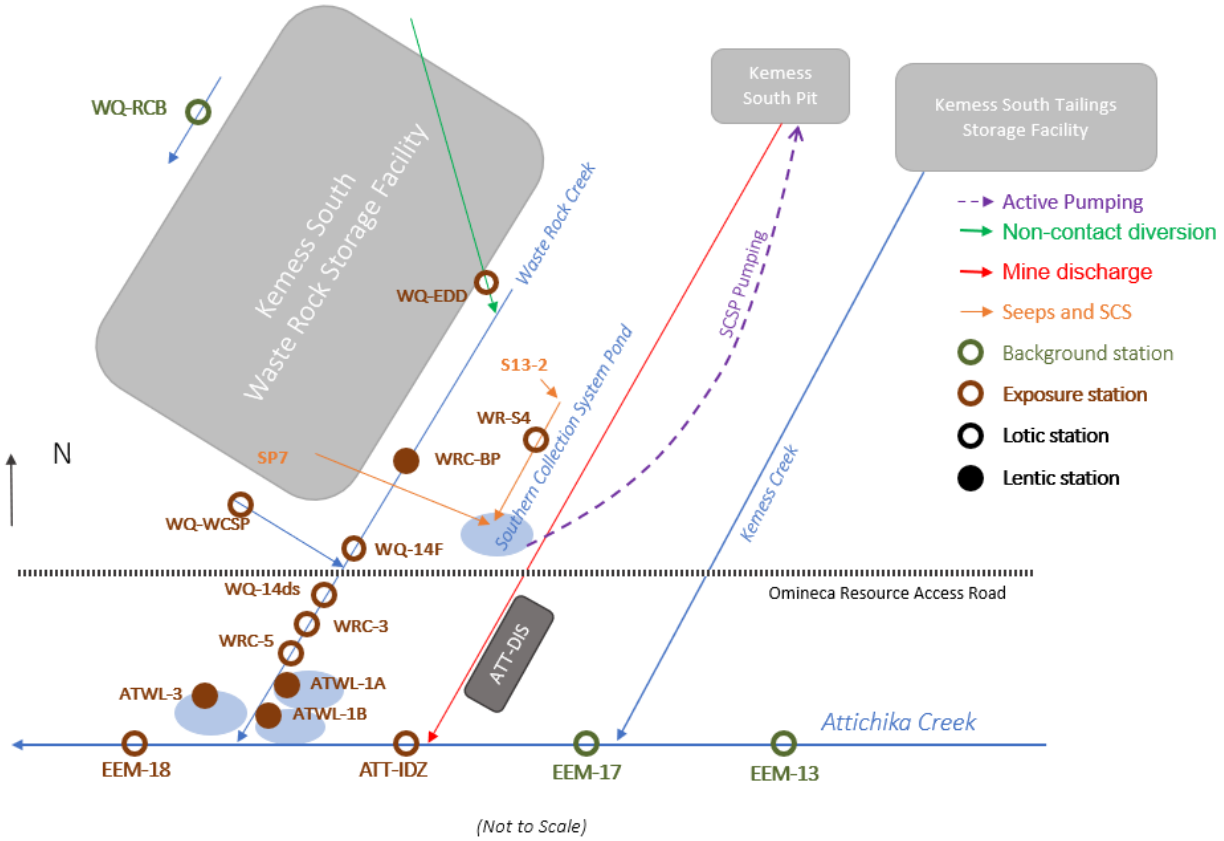
The NMP was updated in 2025, as required by permit condition 3.2.1 in *Environmental Management Act* Permit 15335, to reflect the current water management and environmental monitoring framework at the Kemess (AuRico 2025). The NMP includes sampling of water, periphyton, and benthic invertebrate at sixteen stations in the mine footprint and in nearby waterbodies. The sampling locations for the monitoring program coincide with historical sampling locations for KS, as well as locations selected for other purposes, such as compliance monitoring under Permit 15335.

1.1 MINE INFLUENCES ON THE AQUATIC ENVIRONMENT

Nitrate can be leached from waste rock piles of blast reagents used in mining activities (Environment Canada 2003). When nitrate is present in aquatic environments at elevated concentrations, it can cause eutrophication. At higher concentrations, nitrate can have ecotoxicological effects on aquatic biota.

At the Kemess Mine, blasting residue contained within the legacy KS WRSF is the source of nitrate loadings in seepage and runoff. Elevated nitrate concentrations in Waste Rock Creek downstream of the NAG WRSF (Figure 1.1) persist and require continued management in closure. There were seepages with elevated nitrate that contributed to the nitrate loadings to Waste Rock Creek, including S13-2 (Leach Cap Waste Storage Facility) and SP7 (NAG WRSF). However, management strategies implemented since 2019 to capture these seeps have caused nitrate concentrations in Waste Rock Creek to continue to decrease.

Figure 1.1 Schematic of the 2025 Kemess nitrate monitoring program.



1.2 PREVIOUS MONITORING AND MANAGEMENT

The Nitrate Management Plan, first developed in 2018, was established to provide guidance and information on the requirements of nitrate discharge concentrations in Waste Rock Creek. Despite a steady decrease from early 2014 to 2018, nitrate concentrations measured at WQ-14F remain elevated compared to the long-term receiving environment guidelines (BC receiving water guideline of 3.0 mg/L). In 2013, two seepages were identified with elevated nitrate concentrations substantially contributing to the loadings to Waste Rock Creek: S13-2 (~12 L/s flow, 8.6 to 19.6 mg/L in 2016), and SP7 (~1 L/s flow, 34.8 to 51.7 mg/L). Both seeps are currently being collected within Southern Collection System Pond (SCSP) and pumped to the KUG Tailings Storage Facility (TSF; formerly the Kemess South Pit, Figure 1.1). Modelling predictions for nitrate to the Waste Rock drainage basin and Attichika Creek were revised in 2017 to reflect water quality monitoring data and refinements to source term information as a component of the KUG EMA permit application. The general approach to the short-term nitrate mitigation plan involves the maintenance of the permanent engineered cover system installed to reduce infiltration rates through the Leach Cap Waste Rock portion of the waste rock storage facility, isolating elevated nitrate exposure pathways to reduce loadings to Waste Rock Creek, and collecting NAG WRSF seepage with elevated nitrate while maximizing the replacement of freshwater to the system where possible.

The results of the 2019 monitoring, which was the first year of monitoring under the NMP, did not provide evidence of observed effects on the productivity of periphyton and benthic invertebrate communities in the

far-field environment. Nitrate concentrations continued to decline in Waste Rock Creek and were consistent with the predictions stated in the water quality model. The results of 2023 and 2024 nitrate management monitoring showed that aqueous nitrate concentrations continued to decline in Waste Rock Creek and were generally less than the proposed interim attainment schedule (IAS) targets for WQ-14F and WQ-14ds that came into effect in May 2023, after substantial effort was made in controlling seeps around the WRSF. The observed changes in nitrate concentrations were not associated with changes in productivity or composition of periphyton and benthic invertebrate communities downstream of the WRSF. Similarly, effects on the productivity or composition of periphyton and benthic invertebrate communities were not identified at far-field stations in Attichika Creek, where nitrate concentrations were less than those measured in Waste Rock Creek. Consistent with previous monitoring years, nitrate concentrations in the Attichika wetlands had measured concentrations that remained less than the BC water quality guideline for the protection of aquatic life, though monitoring stations downstream of ATT-DIS were slightly greater than reference stations upstream. This indicates a slight increase in nitrate likely due to intermittent discharges from ATT-DIS during the summer months, and possibly small contributions from Waste Rock Creek.

1.3 2025 MONITORING PROGRAM DESIGN

1.3.1 Study Objectives

The 2025 NMP monitoring program constitutes the sixth year of monitoring after the implementation of the NMP, and was the first year of monitoring under the 2025 design (AuRico 2025). The 2025 program collected and compiled biological data (i.e., periphyton, and benthic invertebrates) and supporting water quality data from on-site Collection and Diversion Ditches, Waste Rock Creek and associated wetlands, Attichika wetlands, and Attichika Creek.

The 2025 NMP monitoring program focused on the following objectives:

- Characterize water nitrate concentrations in water bodies within and near the footprint of the mine and compare them to the predictions of the water quality model; and
- Provide interpretive results from aquatic resource monitoring (periphyton and benthic invertebrate communities).

1.3.2 Study Design

The NMP monitoring program is designed to assess the potential effects of nitrate seepage from the NAG WRSF on the receiving environment. Spatially, this program focuses on both erosional and depositional environments in the Waste Rock Creek watershed, i.e., Waste Rock Creek and associated wetlands, and Attichika wetlands. Aquatic monitoring in Attichika Creek is completed under the Fish and Aquatic Effects Monitoring Program (FAEMP; Hatfield 2025a), with results from the FAEMP being used to help with the interpretation of results from the NMP monitoring program.

1.3.3 Program Components

The overall components of the NMP monitoring program include:

- **Surface water quality:** Grab samples and in situ measurements were taken at each station to assess nitrate concentrations in water. Grab samples were analyzed for turbidity, hardness, total suspended solids, major ions, nutrients, total organic carbon (TOC), and total and dissolved metals;
- **Periphyton community structure and biomass:** Community structure, chlorophyll-*a* and ash-free dry weight (AFDW) were measured to assess effects on the health and productivity of aquatic primary producers; and
- **Benthic invertebrate abundance and community structure**: Samples compliant with Canadian Aquatic Biomonitoring Network (CABIN; Environment Canada 2012a; 2012b, ECCC 2019) and provincial protocols (BC MOE 2013) were collected to assess effects on the growth and health of aquatic invertebrate communities.

2.0 METHODS

The benthic invertebrate, periphyton, and water sampling for the 2025 Kemess NMP monitoring program was conducted between September 10 and 19, 2025, by Hatfield staff at the Kemess Mine. Additional water quality sampling was completed by mine staff on a weekly, monthly, or quarterly basis in 2025 as a component of the mine's routine water quality monitoring program and is used to supplement interpretation of biological data.

2.1 SAMPLING DESIGN

The study area included stations distributed in diversion and collection ditches on the mine station, Waste Rock Creek, Attichika Wetlands, and Attichika Creek (Figure 2.1). A program summary, including station IDs, UTMs, station types, and number of replicates for each sampling component, is provided in Table 2.1 below. Stations are presented in an upstream-to-downstream order, with reference stations discussed first for each watercourse. The deviation from the study during the 2025 program was the loss of the periphyton community composition samples during demobilization. The periphyton community compositions were collected as planned, but were lost during shipping the samples from the mine site.

The WRSF seep and diversion ditches were monitored in 2025 at the locations outlined in Table 2.2, which are depicted in Figure 2.1.

Table 2.1 Summary of samples collected for the 2025 Kemess nitrate monitoring program.

Station ID	Station Type	UTM (Zone 9)	Sampling Components[1]					
			Water Quality	Benthic Invertebrate		Periphyton		
				Tax CABIN	Tax Ekman	Chl-*a*	AFDW	Tax
Upstream Background								
WQ-RCb	Background	634304 E 6320694 N	1 Q[3]	-	-	-	-	-
Diversion and Collection Ditches								
WQ-EDD	Infrastructure	635002 E 6319019 N	1 M[3]	-	-	-	-	-
WR-S4	Infrastructure	634611 E 6318631 N	1 M[3]	-	-	-	-	-
WQ-WCSP	Infrastructure	634033 E 6318561 N	1 M[3]	-	-	-	-	-
Waste Rock Creek								
WRC-BP	Receiving	634472 E 6318306 N	1	-	1	-	-	-
WQ-14F	Receiving	634105 E 6318127 N	1 M[3]	1	-	5	5	1†
WQ-14ds	Receiving	633729 E 6317782 N	1 M[3]	1	-	5	5	1†
WRC-5	Receiving	633861 E 6317624 N	1	1	-	5	5	1†
Attichika Wetlands								
ATWL-1A	Receiving	633768 E 6317512 N	1 M[3]	-	1	-	-	-
ATWL-1B	Receiving	633328 E 6317660 N	1 M[3]	-	1	-	-	-
ATWL-3	Receiving	632905 E 6317489 N	1	-	1	-	-	-
Attichika Creek								
EEM-13	Upstream Background	638603 E 6314307 N	1	3	-	5	5	1†
EEM-17	Upstream Background[2]	634376 E 6317188 N	1	3	-	5	5	1†
ATT-IDZ	Receiving	633804 E 6317113 N	1 WIF[3]	3	-	5	5	1†
EEM-18	Receiving	632588 E 6317477 N	1 M[3]	3	-	5	5	1†

Q: quarterly; M: monthly; WIF: weekly if discharge is flowing; Tax: community composition and taxonomy; Chl-*a*: chlorophyll-*a*; AFDW: ash-free dry weight; "-": sample not required.

[1] Numbers indicate quantity of replicates collected by Hatfield staff.

[2] EEM-17 is upstream of the mine discharge to Attichika Creek representing background conditions for Attichika Creek; however, it is located downstream of the confluence with Kemess Creek and may have some far field mine influences from the Kemess South tailings pond discharge.

[3] Frequency of samples collected by mine staff during the routine water quality monitoring program.

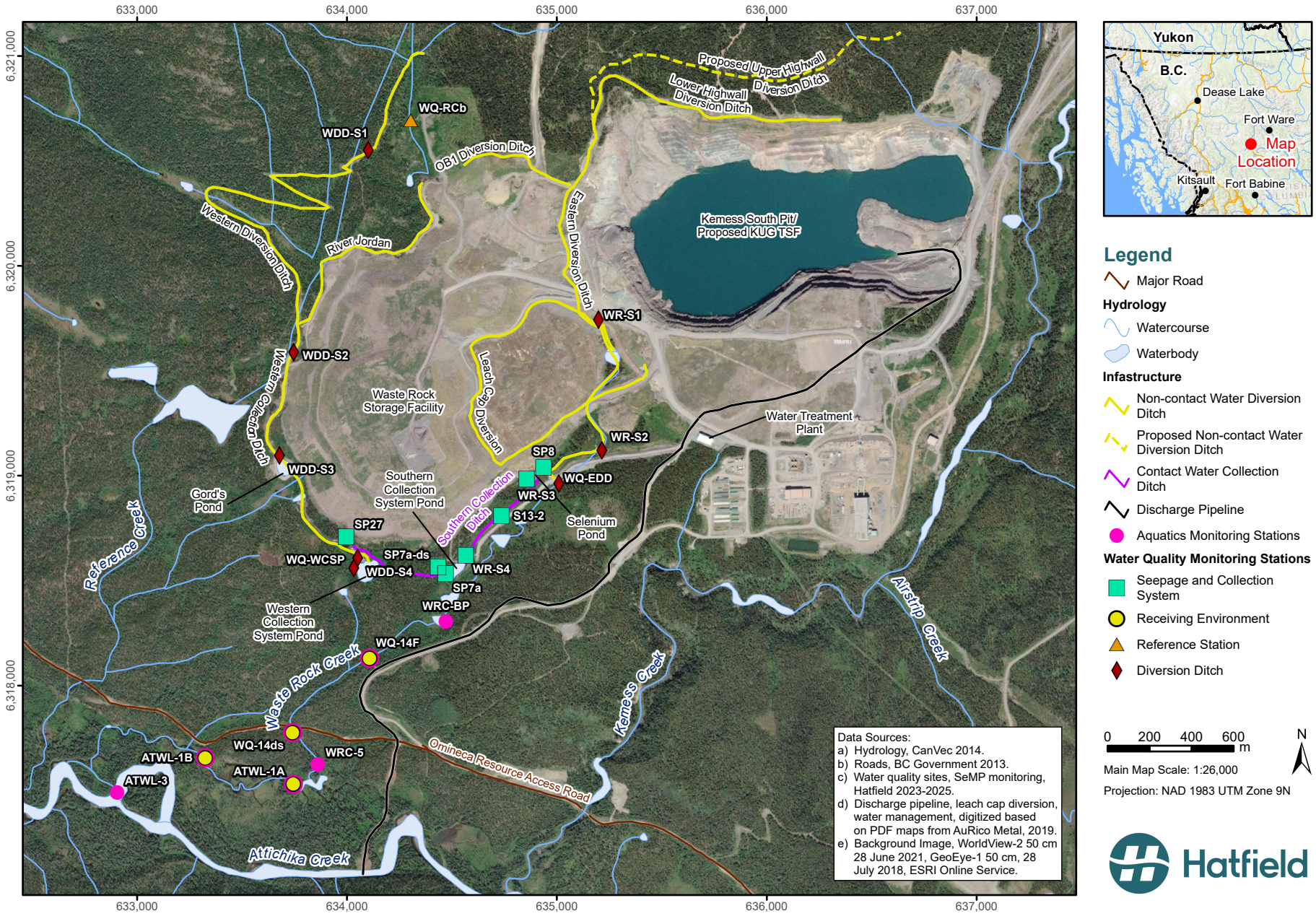
† The periphyton taxonomy samples were lost during shipping.

Table 2.2 Waste Rock Storage Facility seep and diversion ditch monitoring locations.

Station	Station Type	UTM (Zone 9)	Description	Monitoring Frequency[1]
Southern Collection Ditch				
SP27	Mine contact water	633996E, 6318709N	The Southern Collection Ditch seeps flow to the Southern Collection System Pond and are then pumped to the KUG TSF.	Monthly
SP7a-ds	Mine contact water	634150E, 6318580N		Monthly
S13-2	Mine contact water	634736E, 6318809N		Monthly
WR-S3	Mine contact water	634856E, 6318983N		Monthly
SP8	Mine contact water	634937E, 6319040N		Monthly
Eastern Diversion Ditch				
WR-S1	Non-contact water	635199E, 6319742N	The Eastern Diversion Ditch non-contact water flows to WQ-EDD and discharges to the wetland complex forming the headwaters of Waste Rock Creek.	Monthly
WR-S2	Non-contact water	635215E, 6319121N		Monthly
Western Diversion Ditch				
WDD-S1	Non-contact water	634102E, 6320551N	The Western Diversion Ditch non-contact water flows to the Western Collection System Pond which then discharges into Waste Rock Creek, downstream of WQ-14F.	Monthly
WDD-S2	Non-contact water	633746E, 6319588N		Monthly
WDD-S3	Non-contact water	633679E, 6319096N		Monthly
WDD-S4	Non-contact water	634051E, 6318608N		Monthly

[1] Sampled monthly from May to October, as per the NMP (AuRico Metals 2018).

Figure 2.1 Sampling locations for the 2025 Kemess nitrate monitoring program.



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2.1.1 Sampling Locations

2.1.1.1 Waste Rock Storage Facility Seeps and Diversion Ditches

Monitoring seeps and the diversion ditches at the WRSF is a critical part of nitrate management. The seeps that daylight at the toe of the WRSF are known to have high nitrate concentrations, so identifying and monitoring these seeps is critical to developing mitigation and management measures. Seeps, such as those monitored at S13-2, WR-S3, and SP27, represent important nitrate sources, and have been targets for interception and diversion. For example, diversion of the SP27 to SCSP, which is pumped to the KS Pit, was started in 2022 and completed in 2023, resulting in substantial decreases in nitrate loading to Waste Rock Creek (see Section 3.1). Monitoring in the diversion ditches, such as the monitoring stations in the Western Diversion Ditch, provides information on background conditions and can also identify emerging sources of nitrate. A visual inspection occurs once a year along the toe of the WRSF to identify any new seepage pathways. No new seepage pathways were identified in 2025.

2.1.1.2 Waste Rock Creek

Waste Rock Creek Beaver Pond Receiving Environment Station (WRC-BP)

The Waste Rock Creek Beaver Pond station WRC-BP is located downstream of the SCSP and flows into Waste Rock Creek. In 2025 WRC-BP was characterized by silt and sand substrate with no macrophytes, but intermediate emergent vegetation cover. Water levels were lower than the historical average (2019 to 2022) likely due to beaver activity upstream of the pond (Figure 2.2).

Figure 2.2 Station photos for Waste Rock Creek Beaver Pond exposure area, WRC-BP.

Photo 1 View of inlet channel, September 2025.

Photo 2 View of Beaver Pond, September 2025.

Waste Rock Creek Receiving Environment Station (WQ-14F)

The receiving environment station WQ-14F is in upper Waste Rock Creek, downstream of the Waste Rock Creek wetlands and upstream of the confluence with the WCSP discharge. In 2025, WQ-14F was characterized by riffle and straight run habitat (Figure 2.3) with unembedded small cobble and pebble substrate. Bankfull and wetted widths were 1.1 m and 0.9 m respectively, an average depth of 9.4 cm, and an average velocity of 0.3 m/s. Coniferous trees were the dominant streamside vegetation, with coniferous

trees, deciduous trees, and grasses/ferns present. Canopy coverage was intermediate at 26 to 50% and macrophyte coverage was less than 25%. Periphyton was observed as numerous large clumps of algae.

Figure 2.3 Station photos for Waste Rock Creek exposure area, WQ-14F.

Photo 1 Upstream view, September 2025

Photo 2 Channel substrate, September 2025.

Waste Rock Creek Receiving Environment Station (WQ-14ds)

The receiving environment station WQ-14ds is in lower Waste Rock Creek downstream of all discharges and seeps from the NAG WRSF. In 2025, WQ-14ds was characterized by riffles and a pool/back eddy habitat with small cobble and large pebble substrates (Figure 2.4). Bankfull and wetted widths were approximately 1.9 m, with an average depth of 11 cm, and average velocity of 0.2 m/s. Shrubs were the dominant streamside vegetation, with coniferous trees, deciduous trees, and grasses/ferns present. Canopy coverage was intermediate, ranging from 26 to 50% and no macrophytes were observed. Periphyton was observed as yellow-brown to light green colour, 0.5-1 mm thick.

Figure 2.4 Station photos for Waste Rock Creek exposure area, WQ-14ds.

Photo 1 Upstream view, September 2025.

Photo 2 Channel substrate, September 2025.

Waste Rock Creek Receiving Environment Station (WRC-5)

The receiving environment station WRC-5 is in lower Waste Rock Creek downstream of WQ-14ds, and immediately upstream of the Attichika wetland complex. In 2025, WRC-5 was characterized by riffle and pool/back eddy habitat (Figure 2.5). The bankfull and wetted widths were 1.9 m, average depth was 8.5 cm, and average velocity was 0.4 m/s. Substrates were dominated by unembedded small cobbles and large pebbles. Shrubs were the dominant streamside vegetation, with the presence of coniferous trees, deciduous trees and grasses/ferns. Canopy cover ranged from 1 to 25% and no macrophytes were observed. Periphyton was observed as slimy substrate, with no obvious colour, and <0.5 mm thick.

Figure 2.5 Station photos for Waste Rock Creek exposure area, WRC-5.

Photo 1 Upstream view, September 2025.

Photo 2 Channel substrate, September 2025.

2.1.1.3 Attichika Wetlands

Attichika Wetlands Receiving Environment Station, ATWL-1A

The receiving environment station ATWL-1A is in the upper part of the Attichika wetlands complex, downstream of the outflow from Waste Rock Creek. In 2025, ATWL-1A was characterized by fine substrate, with the presence of emergent and submergent aquatic vegetation (Figure 2.6). Streamside vegetation was dominated by grasses, with the presence of deciduous and coniferous trees and shrubs.

Figure 2.6 Station photo for Attichika Wetlands exposure area, ATWL-1A.

Photo 1 Upstream view, September 2025.

Photo 2 Riparian vegetation and pond edge, September 2025.

Attichika Wetlands Receiving Environment Station, ATWL-1B

The receiving environment station ATWL-1B is in mid-Attichika wetlands complex, downstream of ATWL-1A. In 2025, ATWL-1B was characterized by silt and gravel substrate, with the presence of emergent and submergent aquatic vegetation (Figure 2.7). Streamside vegetation was dominated by coniferous trees, with the presence of deciduous trees, shrubs and ferns grasses and sedges.

Figure 2.7 Station photo for Attichika Wetlands exposure area, ATWL-1B.

Photo 1 Upper pool formed by beaver dam, facing southwest, September 2025.

Photo 2 Pond and channel facing east, September 2025.

Attichika Wetlands Receiving Environment Station, ATWL-3

The receiving environment station ATWL-3 is in the lower portion of the Attichika wetlands complex, immediately upstream of the confluence with Attichika Creek. Water levels at ATWL-3 were full (Figure 2.8). In 2025 ATWL-3 was characterized by sandy substrate, with sparse emergent and numerous submergent aquatic vegetation. Streamside vegetation was dominated by grasses, with the presence of deciduous trees, coniferous trees and shrubs.

Figure 2.8 Station photo for Attichika Wetlands exposure area, ATWL-3.

Photo 1 Upstream view facing north, September 2025.

Photo 2 Pond margin and outlet, September 2025.

2.1.1.4 Attichika Creek

Attichika Creek Upstream Background Station (EEM-13)

The reference station EEM-13 is located in Attichika Creek, upstream of the diffuser and the confluence with Kemess Creek. This station is upstream of potential mine influences from KS and KUG mines. EEM-13 is characterized by straight run and riffle habitat with unembedded cobble and pebble substrate (Figure 2.9). The bankfull width is approximately 23 m, with a wetted width of 12 m, average depth of 28 cm, and average velocity of 0.5 m/s. Shrubs are the dominant streamside vegetation, with coniferous trees, grasses, and ferns present. The canopy and macrophyte coverage were less than 25%, and periphyton was observed to be around 0.5-1 mm thick.

Figure 2.9 Station photos for Attichika Creek reference area, EEM-13.

Photo 1 Upstream view, September 2025.

Photo 2 Cross-channel view, September 2025.

Attichika Creek Upstream Background Station (EEM-17)

The upstream background station EEM-17 is located in Attichika Creek upstream of the diffuser and downstream of the confluence with Kemess Creek. This station represents background conditions for Attichika Creek as it is not associated with potential mine related effects from the diffuser. However, as this station is located downstream of Kemess Creek, this station also provides background context for potential mine related effects to Attichika Creek from Kemess Creek and the KS TSF. EEM-17 is characterized by riffle habitat with 25% embedded cobble substrate (Figure 2.10). The channel bankfull width is approximately 25 m, with a wetted width of approximately 21 m, an average depth of approximately 24 cm, and an average velocity of 0.9 m/s. EEM-17 has few depositional areas and, due to high flows in 2025, it was unsafe to access the left bank allowing for only two of the three sediment quality replicates to be collected. Coniferous trees were the dominant streamside vegetation, with shrubs, grasses, and ferns present. Canopy coverage was minimal at less than 25% with no macrophyte coverage observed in 2025. Periphyton was observed to be around 1-5 mm thick.

Figure 2.10 Station photos for Attichika Creek upstream area, EEM-17.

Photo 1 Upstream view, September 2025.

Photo 2 Lef-bank view, September 2025.

Attichika Creek Receiving Environment Station (ATT-IDZ)

The near-field exposure station ATT-IDZ is located in Attichika Creek approximately 200 m downstream of the diffuser at the end of the initial dilution zone (IDZ). ATT-IDZ is characterized by straight run habitat (Figure 2.11), with unembedded cobble and pebble substrate. The channel bankfull width is approximately 29 m with a wetted width of 27 m, average depth of approximately 34 cm, and average velocity of 0.6 m/s. Shrubs were the dominant streamside vegetation, with coniferous trees, grasses, and ferns present. Canopy and macrophyte cover was less than 25% and periphyton was observed to be around 1-5 mm thick.

Figure 2.11 Station photos for Attichika Creek near-field exposure area, ATT-IDZ.

Photo 1 Upstream view, September 2025.

Photo 2 Cross-channel view, September 2025.

Attichika Creek Receiving Environment Station (EEM-18)

The far-field exposure station EEM-18 is located in Attichika Creek downstream of the confluence with Waste Rock Creek and the Attichika Wetlands. EEM-18 is characterized by riffle and straight run habitat (Figure 2.12), with unembedded pebbles and cobbles. The channel bankfull width is approximately 31 m, with a wetted width of 14 m, average depth of 34 cm, and average velocity of 0.5 m/s. Shrubs were the dominant

streamside vegetation, with coniferous trees, grasses, and ferns present. There was no canopy or macrophyte coverage in 2025, and periphyton was observed to be around 1-5 mm thick.

Figure 2.12 Station photos for Attichika Creek far-field exposure area, EEM-18.

Photo 1 Cross-channel view, September 2025.

Photo 2 Submerged substrate, September 2025.

2.2 WATER QUALITY

2.2.1 Sample Collection

Surface water chemistry was monitored to both support the biological monitoring programs and fulfill the permit (PE-15335) requirements. To support the biological monitoring programs, water samples were collected in September at each sampling station in conjunction with benthic invertebrate, and periphyton sampling. Additional water quality data was obtained from the Mine's Surface Water Monitoring program, which included monthly and quarterly samples for several of the stations sampled as part of the biological monitoring program.

Surface water samples were collected by Hatfield staff following procedures outlined in (BC MOE 2013) and Hatfield standard operating procedures (SOPs). *In-situ* water quality constituents were measured using a calibrated Hanna Combo pen (for water temperature, specific conductivity, and pH) and a LaMotte titration kit (for dissolved oxygen). Water samples were collected using laboratory-supplied containers submerged to a depth of approximately 30 cm (where feasible). Samples were preserved according to laboratory instructions and shipped to ALS Environmental (Burnaby, BC) for conventional variables, anions and nutrients, cyanides, total metals, and dissolved metals.

2.2.2 Data Analysis

Water samples were analyzed for conventional variables, anions and nutrients, cyanides, total metals, dissolved metals, and selenium speciation in accordance with standard laboratory methods. Analytes were compared to provincial approved and working water quality guidelines for the protection of aquatic life (BC WQG FAL; BC ENV 2025 and BC WLRS 2025). Data were screened against guidelines to identify water quality variables with concentrations that may pose a potential risk to aquatic biota, and to evaluate spatial patterns in water quality prior to effluent discharge. Water quality data were compared to historical data to

understand the spatial and temporal patterns present in water chemistry data over time. In addition, a Mann-Kendall trend analysis (α = 0.05, with a correction for autocorrelation following Zhang et al. 2000) was completed to statistically compare trends over time for each analyte.

Water quality data was rounded to two significant figures to better summarize for analyses. Rounding the data to two significant figures was chosen as it allows for a concise representation of the numerical values while retaining the most relevant information for analysis. This approach ensures that the data remains interpretable and facilitates clearer communication of the key findings and insights derived from the analysis.

2.2.3 Quality Assurance/Quality Control

2.2.3.1 Field QA/QC

Water QA/QC samples were collected to assess potential sample contamination from sample containers, preservatives, or from other sources from collection handling and shipping. QA/QC samples were collected at a randomly selected station (10% of total samples) and submitted to the analytical laboratory. QA/QC samples employed in this program included:

- **Travel blank**, which is prepared by the analytical laboratory prior to sampling and kept sealed for the duration of the sampling trip. These are used to evaluate potential contamination from the sample container and efficacy of storage conditions;
- **Field blank**, which is prepared in the field by filling a complete bottle set with de-ionized water provided by the analytical laboratory. Field blanks are used to assess potential contamination of samples during collection, handling and transport; and
- **Field duplicate**, which is prepared in the field by filling a second complete set of sample bottles concurrently with the standard field sample set. Field duplicates are used to assess lab testing methods and provide an assessment of the homogeneity of sampled water.

QA/QC samples were submitted blind to the analytical laboratory and results were screened for potential anomalous values upon receipt. The duplicate samples were assessed by calculating the relative percent difference (RPD) between the analytical results, if the concentration for at least one of the results was greater than five times the reported detection limit. RPD was calculated using the following formula:

$$RPD = \frac{2(Sample\ A - Sample\ B)}{(Sample\ A + Sample\ B)} * 100\%$$

RPD values of less than 20% are considered acceptable, whereas RPD values greater than 20% indicate a potential bias (e.g., sample contamination, sampling method bias, media heterogeneity, etc.), and greater than 50% are considered to indicate a problem (BC MOE 2013). Elevated RPD values were evaluated to determine potential causes and the significance with respect to interpretation of sample results.

Field blank and travel blank results were evaluated based on whether analyte concentrations were detectable. Measured concentrations in blanks were considered notable if they were greater than or equal to five times the corresponding analytical detection limit. This threshold is based on the Practical Quantitation Limit (PQL) defined by the United States Environmental Protection Agency (US EPA 1985).

This criterion was not applied to pH, which is expected to be greater than the laboratory-reported detection limit in the deionized water used to prepare the blanks. Detectible concentrations in blank samples greater than five times the detection limit suggests the potential introduction of foreign material into the samples, potentially biasing the final sample results.

Water quality samples were analyzed at ALS Environmental, which follows a robust laboratory QA/QC program. ALS uses a laboratory information management system that consists of QC checks at each stage of sample handling to assure quality. Each batch of samples is staged, analyzed, and reported with a set of QC samples. QC samples include blanks, matrix spikes, spiked samples, and spiked blanks. As part of their internal QC, ALS also runs a duplicate analysis on randomly selected samples from each batch of samples (Lab-Dup) for which the RPD is calculated. The % recoveries of spike samples, the RPD value between the initial and lab-duplicate samples, and detections in blank samples are reported in a Quality Control report issued with the laboratory data.

During the quality control assessment, most field duplicate RPDs, as well as field and travel blanks, were considered acceptable. However, the following laboratory QA/QC flags were identified and were deemed not to substantially influence data quality or influence interpretation:

- RPDs between the parent sample WQ-EDD and its field duplicate, DUP 1, were marginally higher than the DQO of 20% for turbidity, total aluminum and total manganese.
- Hold times for pH, turbidity, nitrate, nitrite, and dissolved orthophosphate were longer than the targeted hold time for all submitted samples. Typically, the holding times were exceeded by one to three days for dissolved orthophosphate, nitrate, nitrite, and turbidity, which all have holding times of three days, whereas the pH hold time was exceeded in every instance due to the short hold time of 0.25 hours. Due to the remote nature of the mine site, the expedient transportation of samples to the analytical laboratory is challenging. As pH and turbidity were analytes that were also measured during field sampling, their hold time exceedances are not considered to have affected the results interpretation for this report. Orthophosphate samples that were outside of holding time limits may have had increased uncertainty, however total dissolved phosphorus samples were within holding times, had results that were low or non-detect, and were considered a reliable indicator in assessing biological availability of phosphorus. Nitrate samples that exceeded hold time limits had similar concentrations to nitrate samples from 2025 that met the sample hold time DQO. Therefore, these hold time outliers were not considered to have significantly affected the interpretation of the results.
- The laboratory control sample had a measured value for total sulphur that was outside of the control sample data quality objective (DQO), which was considered acceptable per Canadian Council of Ministers of the Environment (CCME) guidance.
- The laboratory method blank had measured concentrations greater than the laboratory DQO for total copper; limits of reporting were adjusted for samples with positive hits less than five times the blank level.

QA/QC results for water quality samples are provided in Appendix A2.

2.3 PERIPHYTON

Periphyton represent a complex community of algae and heterotrophic (i.e., non-photosynthesizing) microbes that are attached to submerged substrata and are an important food source for many species of benthic invertebrates. The analytical results of the periphyton survey are presented in Appendix A3.

2.3.1 Sample Collection

Periphyton biomass (measured as chlorophyll-*a* and AFDW and community composition were sampled following BC ENV guidance (Cavanagh et al. 1994) and accepted best practices. To assess periphyton biomass (as chlorophyll-*a* and AFDW), five (5) rocks were sampled at each station to collect five replicate samples. To assess periphyton community composition, one composite replicate sample was collected per station. Samples were collected as follows:

- Rocks that were relatively flat, small enough to lift, and large enough to collect sufficient sample material were collected from random locations in the stream.
- **Periphyton biomass (as chlorophyll-*a*)** – a 4 cm × 4 cm (16 cm^2) template was held over the cobble. A scalpel was used to remove periphyton from the area within the template. One scraping was collected per cobble to complete one replicate; five replicates (i.e., five rocks) were collected per station. The scraping from each cobble was transferred directly on to 0.45 µm acetate filter paper, folded, placed into a black centrifuge tube and frozen. Frozen samples were shipped on ice to ALS Environmental (Burnaby, BC) at the conclusion of the sampling program.
- **Periphyton biomass (as AFDW)** – a 4 cm × 4 cm (16 cm^2) template was held over the cobble. A scalpel was used to remove periphyton from the area within the template. One scraping was collected per cobble to complete one replicate; five replicates (i.e., five rocks) were collected per station. The scraping from each cobble was transferred directly onto pre-weighed, ash-free 0.45 µm membrane filter paper, folded, wrapped in a large piece of labeled aluminum foil, placed in a labeled Ziploc bag, and frozen. Frozen samples were shipped on ice to ALS Environmental (Burnaby, BC) at the conclusion of the sampling program.
- **Periphyton taxonomy** – a 4 cm × 4 cm (16 cm^2) template was held over the cobble. A scalpel was used to remove periphyton from the area within the template. Five scrapings from five different rocks were combined to collect one composite taxonomic sample at each sampling station. Each sample was preserved with Lugol's iodine solution. As noted, these samples were lost during sample shipment.

2.3.2 Data Analysis

2.3.2.1 Biomass

Periphyton biomass (as chlorophyll-*a* and AFDW) were expressed as mass per area sampled (in µg/cm^2 for chlorophyll-*a* and g/m^2 for AFDW). The conversion of absolute mass to per-unit-area mass was completed by dividing the absolute mass by the sample area. Chlorophyll-*a* data collected from each station was compared to the BC water quality criteria for nutrients and algae, which provide a guideline for maximum biomass of 10 µg/cm^2 for the protection of aquatic life in streams (BC ENV 2025). This guideline is designed to protect fish habitat and changes in communities of organisms such as benthic invertebrates (BC MOE 2001).

Chlorophyll-*a* data was compared to historical data to understand the spatial and temporal patterns present in periphyton biomass over time. In addition, a Mann-Kendall trend analysis (α = 0.05) was completed on the chlorophyll-*a* data to statistically compare trends over time.

2.3.3 Quality Assurance/Quality Control

Laboratory QA/QC procedures were conducted during periphyton biomass sample analyses to test the accuracy and precision of results. The analytical laboratory used the following internal QA/QC procedures to assess results as required for accreditation:

- **Laboratory duplicate**, used to assess laboratory precision by analyzing two subsamples of a larger sample to determine RPD;
- **Method blanks**, which are blank matrices treated with all the reagents required in the analytical procedure to ensure reagents are not a source of contamination; and
- **Standardized reference materials**, which are samples used to evaluate accuracy, with known concentrations of an associated range of acceptable values to test analytical equipment and calibrations and ensure comparability between laboratories.

A summary of QA/QC results is provided in Appendix A3. QA/QC results from ALS indicate that no outliers existed in the chlorophyll-*a* and AFDW data analysis.

2.4 BENTHIC INVERTEBRATES

2.4.1 Sample Collection

Benthic invertebrate samples at each lotic station (Table 2.1) were collected in accordance with CABIN field protocols (Environment Canada 2012a). Sample collection was conducted using a 400-µm kick-net with a detachable collection cup. The kick-net sampling method involved a single composite sample collected over a three-minute sampling effort using the sampler's feet to disturb substrate to a depth of approximately 5 cm. The sampler travelled in a continuous upstream, zig-zag pattern to capture disturbed sediments in the kick-net. Five replicate samples were collected at each station in Attichika Creek, and one replicate was collected at other stations. To minimize potential confounding factors, efforts were made to collect replicate samples in areas of similar substrate size, water depth, and current velocity within the sampling reach, without re-sampling a pre-disturbed area from a previous replicate. Following sample collection, the net was rinsed, and the collection cups removed to empty their contents into labeled plastic containers. Each replicate sample was placed in their own labeled plastic container with a replicate number. Samples were preserved in 10% buffered Formalin.

Depositional benthic invertebrate samples were collected using an Ekman dredge at each lentic station (Table 2.1) following applicable Hatfield SOPs (Hatfield 2020). Sample collection was conducted using a six-inch (15 cm) Ekman dredge with a sample area of 0.02 m^2. At each station, a composite of three Ekman grabs were collected, and the following criteria were satisfied for each grab:

- The grab did not contain large, foreign objects;
- An adequate penetration depth was achieved;
- The Ekman dredge was not overfilled or leaking; and,

- Samples contained as little aquatic vegetation as possible.

For composite samples, substrate from the three grabs, at least 60% full, were mixed and sieved through a 202-µm mesh in the field to separate invertebrates from the sediment. The contents of the sieve were then transferred to a pre-labeled sample bottle and preserved with 10% buffered Formalin.

Benthic invertebrate samples were shipped to Cordillera Consulting (Summerland, BC) for sorting and identification. Upon receipt of samples, contents were checked for appropriate preservation and labeling, jar number, and sample codes. Formalin was decanted and replaced with 80% ethanol and samples were elutriated to remove inorganic material. Elutriate was examined under low-power magnification to ensure the removal of any molluscs and trichopteran cases. Each sample was washed thoroughly using a 400-µm sieve. Contents were then examined to estimate the total number of invertebrates.

If the estimated total number of individuals in the sample exceeded 600, then subsampling was used to modify the sorting effort. A guideline for a maximum number of 300 individuals was used for subsampling, following CABIN and federal EEM guidance. A Marchant box was used by an experienced taxonomist for subsampling. Organisms were identified using a variety of industry-standard keys by a certified taxonomist with identification to the LPL. According to CABIN criteria, identifications are to be made at the genus/species level for all insect organisms found, including Chironomidae. Non-insect organisms (except those not included in count) are to be identified to genus/species where possible and to a minimum of family-level with intact and mature specimens. Standard Taxonomic Effort lists compiled by SAFIT (2006) were used as a guideline for what level of identification to achieve where the condition and maturity of the organism enabled. The analytical results of the benthic invertebrate analyses are presented in Appendix A4.

Supporting Habitat Data

At each lotic benthic invertebrate sampling station, detailed habitat data was collected following CABIN field protocols (Environment Canada 2012a), including:

- *In situ* water quality, such as temperature, pH, specific conductivity, and dissolved oxygen;
- A description of reach characteristics, such as instream and overhead vegetative cover, and classification of aquatic habitat types (i.e., riffle, run, pool) present in the reach;
- Characterization of stream substrate, including a 100-pebble count, substrate embeddedness classification, and a determination of the size of surrounding substrate materials; and,
- Measurements of stream channel characteristics, such as channel width (bankfull and wetted), depth, bankfull wetted depth, velocity, and slope.

Where multiple CABIN kick-net samples were taken at a single station, all field measurements were only collected once to represent the overall reach. Desktop analyses using GIS software were used to generate additional habitat variables required for CABIN analysis.

At each lentic benthic invertebrate sampling station, detailed habitat was collected following CABIN Wetland field protocols (ECCC 2019), including:

- *In situ* water quality, such as temperature, pH, specific conductivity, and dissolved oxygen;

- A description of station characteristics, such as land use, hydrological type, water level stage, vegetation cover, and marginal wetland vegetation; and
- Characterization of stream substrate size class.

2.4.2 Data Analysis

Several approaches were followed for the analysis of benthic invertebrate community data, to allow an assessment of community conditions using multiple lines of evidence. These analytical approaches were drawn from the federal EEM guidance (Environment Canada 2012b) and CABIN guidance (Environment Canada 2012a, ECCC 2019). Additional approaches (e.g., HBI, functional groups) were also applied to benthic community data to understand the community structure and function in detail. Community analyses were performed on filtered data, excluding various terrestrial and ubiquitous organisms (many of which were excluded automatically for CABIN; Environment Canada 2014).

Benthic invertebrate data was rounded to two significant figures to better summarize for analyses. Rounding the data to two significant figures was chosen as it allows for a concise representation of the numerical values while retaining the most relevant information for analysis. This approach ensures that the data remains interpretable and facilitates clearer communication of the key findings and insights derived from the analysis.

2.4.2.1 Biotic Indices

The biotic indices describe benthic invertebrate community composition at each location and facilitate comparison among reference and exposure areas. The biotic indices, including assessment endpoints for EEM studies conducted in British Columbia, are presented below. Unless otherwise stated, these indices were calculated using family-level data. Metrics and indices were compared to previous years for visual examination of variability spatially and temporally.

Total Abundance (CABIN)

The total number of individual organisms in each sample. Because CABIN kick-net samples do not provide an area-based estimate of invertebrate density, total invertebrate abundance was measured as the total number of individuals per kick-net sample (i.e., per 3-minute sample).

Total Density (Ekman)

Total number of individuals of taxa collected at each station expressed per unit area. Invertebrate counts in the samples were corrected for subsampling (if applicable), then converted to an areal density by dividing the count by the area of the sampler (i.e., 0.0675 m^2).

Family Richness

Taxonomic richness is the total number of different invertebrate families present in each sample. If an organism was identified to lower than family level, it was shifted up to family level. If an organism was identified higher than family level, it was assumed that the organism would fit into one of the families already identified if it was a common order (e.g., Diptera) or alternatively, if it was not part of an order already containing family groupings, it was counted independently.

Simpson's Diversity Index

Simpson's diversity index (D) takes into account both the abundance pattern and taxonomic richness of the community in each sample by determining the proportion of individuals of each taxonomic group that contributes to the total. This diversity index can range from 0 to 1, with a value of 1 representing the highest diversity. Simpson's diversity index is calculated as:

$$D = 1 - \sum_{i=1}^{s} [p_i]^2$$

Where:

D = Simpson's index of diversity;
S = the total number of taxa (families) in the sample; and
p_i = the proportion of the i^{th} taxon in the sample.

Evenness

Evenness (E) takes into consideration the abundance of each taxon in proportion to total density and the taxonomic richness in each sample. Evenness ranges from 0 to 1, with 1 representing a community where each taxon present is equally abundant and 0 representing a community where species differ widely in abundance. Evenness is calculated as:

$$E = 1 / \sum_{i=1}^{s} [p_i]^2 / S$$

Where:

E = Evenness;
p_i = the proportion of the i^{th} taxon (family) in the sample; and
S = the total number of taxa in the sample.

2.4.2.2 Other Measures of Community Composition

Percent EPT

The %EPT measure represents the total percentage of organisms in a sample belonging to the insect orders Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies). These taxa are generally considered to be sensitive to decreases in environmental quality. For example, Appalachian stream communities exposed to mine discharges with high dissolved ion concentrations exhibited greater declines and extirpation of EPT taxa than other taxa (Bernhardt and Palmer 2011).

Functional Feeding Groups

Aquatic biota pursue a wide variety of life-history and feeding strategies, which examined in aggregate may provide information about food availability and dynamics and trophic conditions in a waterbody (Barbour et al. 1999). The sum of feeding group memberships for taxa individuals represented in the benthic dataset was added to the analysis to indicate the range and balance of feeding strategies for benthic invertebrates at each station. Data used to define functional feeding groups for all taxa is most comprehensively reported in Merritt et al. (2008).

Hilsenhoff Biotic Index

The Hilsenhoff Biotic Index (Hilsenhoff 1987) is a measure of the aggregate sensitivity of benthic invertebrates (arthropods, specifically) within a sample to organic pollution. It is an average of pollution-tolerance values for all arthropod taxa within a sample. Tolerance values for individual taxa range from 0 to 10, with 0 being most sensitive and 10 being most tolerant. The index is calculated as follows:

$$HBI = \sum_{i=1}^{s} [yi \times Ti]$$

Where:

HBI = Hilsenhoff Biotic Index;
yi = the count of the ith taxon in the sample;
Ti = the pollution-tolerance value for that taxon, from 0 to 10; and
S = number of individuals in the sample.

HBI scores can range from 0 to 10, with the following guidance from Hilsenhoff (1987) regarding classification of results:

HBI Score	Water Quality	Degree of Organic Pollution
0.00 to 3.75	Excellent	Organic pollution unlikely
3.76 to 4.25	Very Good	Possible slight organic pollution
4.26 to 5.00	Good	Some organic pollution probable
5.01 to 5.75	Fair	Fairly substantial pollution likely
5.76 to 6.50	Fairly poor	Substantial pollution likely
6.51 to 7.25	Poor	Very substantial pollution likely
7.26 to 10.00	Very poor	Severe organic pollution likely

Mann-Kendall

The assessment using the benthic invertebrate community metrics (e.g., total abundance, evenness, etc.) combined two approaches – spatial comparisons between stations, and temporal analysis of conditions in 2025 against the available time-series of monitoring results. The temporal analyses were supported by Mann-Kendall non-parametric trend analysis (α = 0.05) using the Zhang et al. (2000) correction for autocorrelation. Potential changes in benthic invertebrate community abundance and diversity were systematically screened using the following criteria:

- Comparisons of the spatial patterns in potential effects related to the pathway(s) of mine influences (e.g., attenuation of potential effects between near-field and far-field exposure locations); and,
- Differences from previous metric values at that location, including comparison to ranges of replicated data and the results of the statistical trend analysis.

The assessment of benthic invertebrate metrics considered both positive and negative changes as potential evidence for mine-related effects. Decreases in total abundance are an obvious indicator of an effect, but potential effects due to selective effects to particular taxa may result in changes to the benthic invertebrate

community metrics in any direction. As a result, the interpretation of the benthic invertebrate metrics included an assessment of the major taxa representing the benthic invertebrate community and the implications of any observed changes in major taxa abundance on the benthic invertebrate community metrics.

CABIN Ordination Analyses: Reference Condition Approach

Data collected via CABIN sampling were analyzed using BEAST (BEnthic Assessment of SedimenT) software program developed by Reynoldson et al. (1995) and operated by Environment and Climate Change Canada (ECCC). This analytical program runs the benthic and environmental data through a series of steps, as outlined in Figure 2.13. These steps comprise the three stages of the reference condition approach (RCA) and help develop a multi-location reference description with which the study data can be compared.

In the first step of the analysis, reference stations that span the range of catchment physiographies encompassed by the test stations were selected from the regional database. In this study, the BC Peace River Region regional reference model (Reynoldson 2019) for CABIN, maintained by BC ENV, was used to assess stream invertebrate communities against the regional reference condition.

In the second step of the RCA analysis, a predictive model was generated using corresponding benthic invertebrate and habitat data from the reference stations. The development of the predictive model followed two main steps:

1. Biological data from reference stations are separated into several biological groups based on the similarity of their benthic invertebrate communities; and
2. The relationship between biological groups and the habitat data is quantified to determine habitat characteristics that best discriminate the biological groups.

In the third step, the model created with the reference stations was used to predict what the benthic community composition at the test station should look like, by using reference stations with habitat characteristics most similar to the test station. The predicted community was then be compared to the observed community composition at the test station, such that the degree of divergence from the predicted community indicates level of impairment.

Interpretation was accomplished using ordination plots output by the CABIN database (https://cabin-rcba.ec.gc.ca/cabin/), which graphically depict the position of test station relative to the group of reference stations. This group of reference stations provides the range of reference conditions. The further the test station is from the centre of this range, the more different it is from the representative subset of reference stations. An example below demonstrates plotting of probability using ellipses (90, 99, 99.9%) based on the reference stations. Positions of test stations within the ellipse bands was used to indicate the degree of divergence along a gradient (Figure 2.14), where:

- Stations that fell within the 90% ellipse were classified as *similar to baseline*, because the tested community is measurably similar to 90% of reference-station communities in the dataset;
- Stations that fell outside the 90% ellipse were classified as *mildly divergent*, because the tested community is measurably different than 90% of communities in the reference-station dataset;

- Stations that fell outside the 99% ellipse were classified as *divergent*, because the tested community is measurably different than 99% of reference station communities in the dataset; and
- Stations that fell outside the 99.9% ellipse are classified as *highly divergent*, because there is judged to be only a 1-in-1,000 chance that the tested community is similar to reference-station communities.

Figure 2.13 Steps involved in the RCA analysis of benthic invertebrate data (modified from Reece and Richardson 2000).

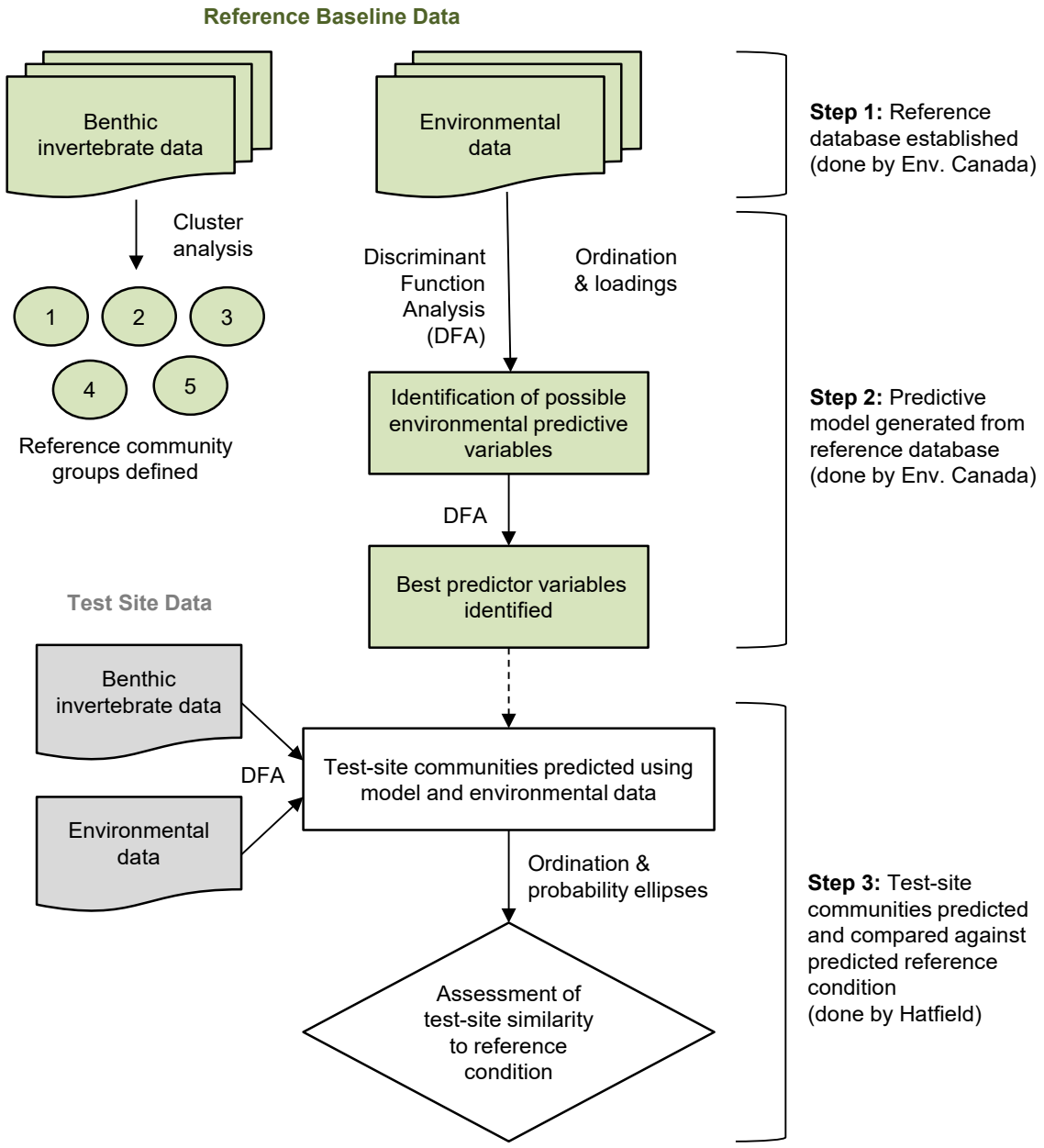
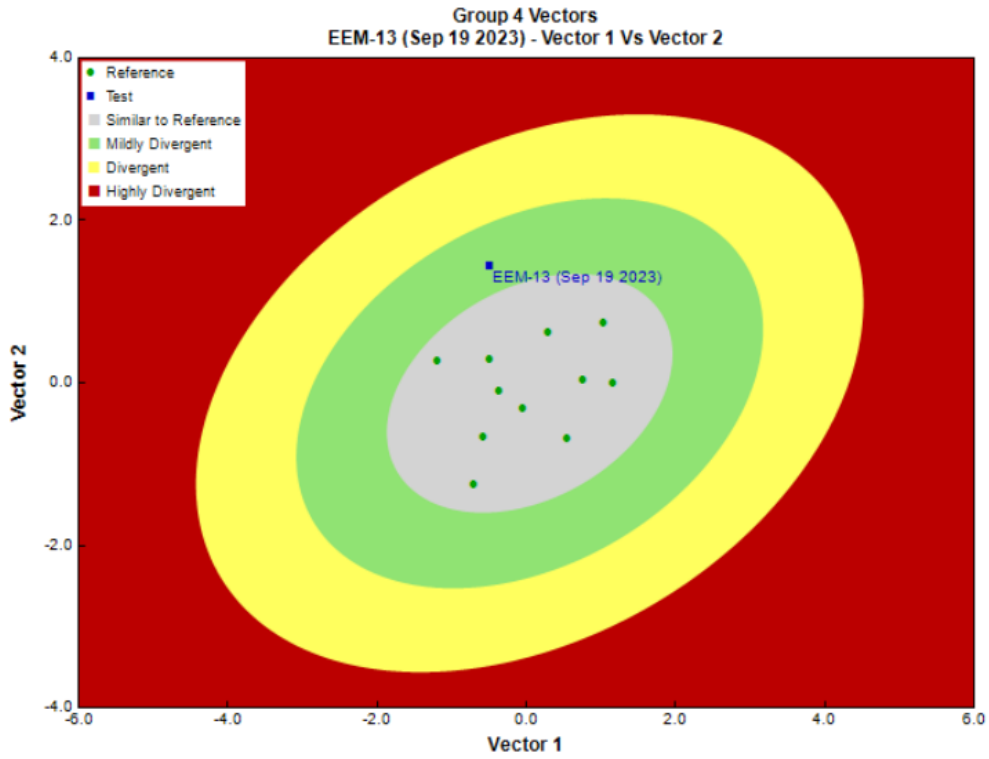


Figure 2.14 Example ordination plot, with probability ellipses around reference stations and positioned test stations.



2.4.3 Quality Assurance/Quality Control

For benthic taxonomy, the laboratory QA/QC measures followed standard procedures (Environment Canada 2012b) and were assessed by the following techniques for the benthic community component:

- A **split sample**, used to assess the difference in counts between two sub-fractions of the same sample. The split check assesses taxonomist precision; and
- A **re-sort sample**, used to evaluate sorting efficiency, where a minimum of 10% of samples were resorted and checked to ensure ≥90% sorting efficiency.

Benthic taxonomy quality control assessment results are as follows:

- The percent efficiency for the re-sort samples were greater than 99% and, therefore, compliant with the 90% threshold provided by EEM guidance (Environment Canada 2012b), and 95% threshold for CABIN samples.
- Sub-Sampling efficiency was measured on 10% of the sub-sampled samples in the project (three samples: ATT-IDZ Rep 5, EEM-18 Rep 1, and WQ-14ds). Sub-samples were within 20% of the total organism count and therefore the results were acceptable.
- Taxonomic quality control was conducted on four samples (i.e., EEM-13 Rep 2, EEM-17 Rep 2, WQ-WCSP and ATWL-3). The calculated percent error for both samples was less than 0.5% and, therefore, acceptable with the 5% CABIN limit.

A summary of QA/QC results for benthic invertebrate samples is provided in Appendix A4. Taxonomic QC samples in 2025 passed testing according to the CABIN misidentification protocols.

3.0 RESULTS

3.1 WATER QUALITY

3.1.1 Nitrate in Seeps and Diversion Ditches

The seep monitoring program found generally stable conditions in 2025, similar to 2024, for nitrate (Figure 3.1). Long-term decreasing trends in nitrate concentrations were observed, with more pronounced decreases observed for older seeps (e.g., S13-2, WR-S3), which are expected due to natural attenuation. SP7a, which is a more recently identified seep, had similar concentrations in 2025 compared to 2024. These seeps currently do not discharge to environment, they are captured and diverted to the SCSP and pumped to the KS Pit.

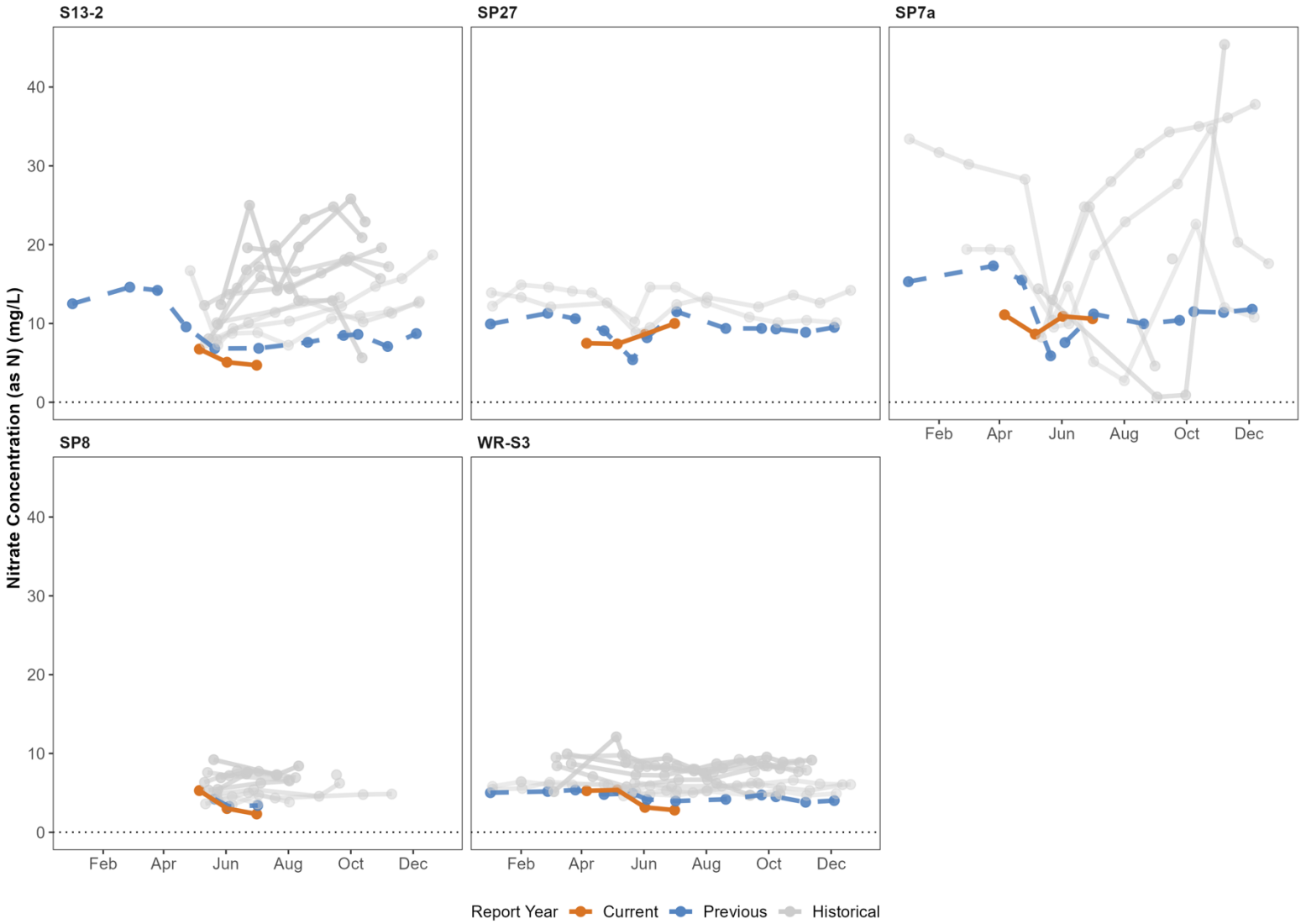
The monitoring stations in the water management infrastructure (i.e., diversion ditches) exhibited stable nitrate concentrations that were generally near or less than analytical detection limits (Figure 3.2). Low nitrate concentrations were expected at these locations, given the majority of the flow is derived from snowmelt and runoff that have relatively small nitrate loads. The higher concentrations of nitrate at WDD-S3 were observed during winter low-flow conditions, when little liquid water is available to dilute any contact water. No new seepage pathways from the WRSF were identified in 2025.

The monitoring program also measures the core physicochemical characteristics, nutrients, and metal concentrations in seeps and water management infrastructure stations. Complete results are provided in Appendix A3. Screening of the 2025 monitoring results identified the following notable patterns:

- Total alkalinity concentrations tended to be higher in older seeps (e.g., S13-2 and WR-S3), whereas newer seeps (e.g., SP7a and SP27) have generally had similar concentrations over the last two or three years (Figure 3.3). Alkalinity levels were generally more elevated in the seeps than the water management infrastructure (i.e., the diversion ditches).
- Less long-term variation in total alkalinity was observed in the water management infrastructure, but seasonal influences tend to be greater (Figure 3.4).

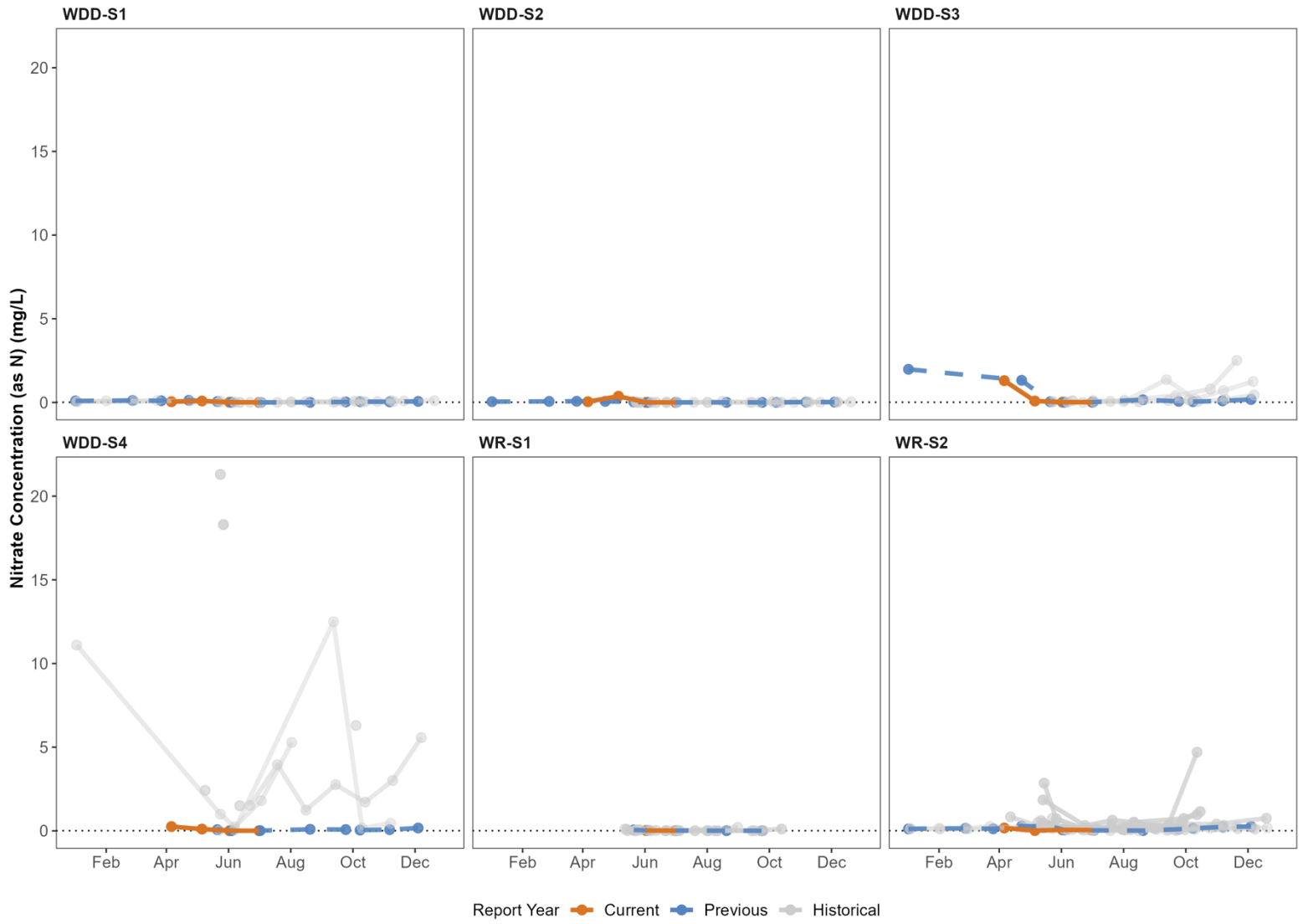
These patterns are consistent with the expected natural attenuation of minerals in the WRSF combined with the seasonal influences of snowmelt and runoff on water quality in the diversion ditches.

Figure 3.1 Nitrate concentrations in Waste Rock Storage Facility seeps, 2012 to 2025.



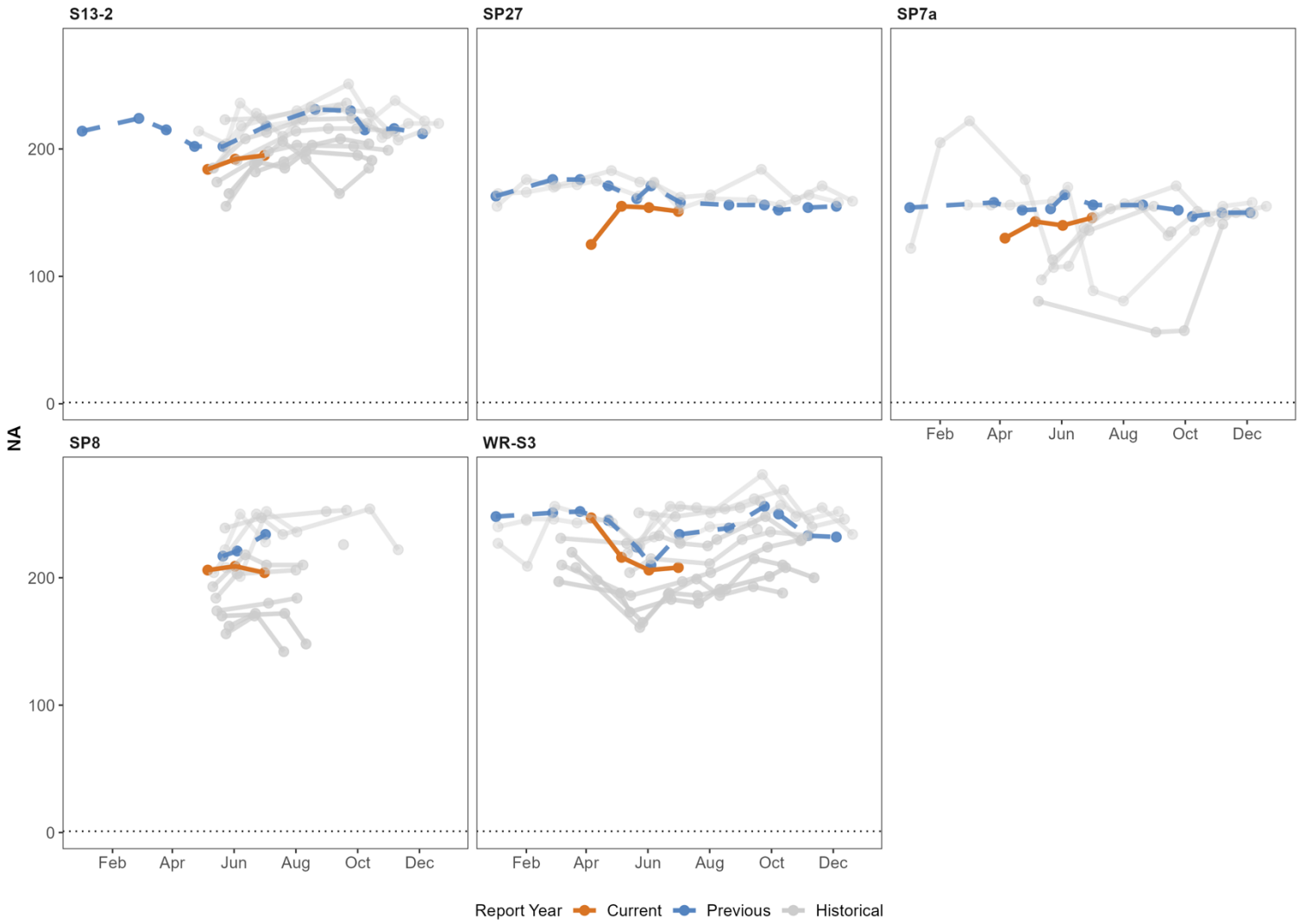
Note: black dotted line represents the detection limit, the orange “current” line represents 2025 results, the blue “previous” line represents 2024 results, and the grey “historical” lines represent 2012 to 2023 results. Note samples not collected in some months due to frozen conditions or lack of flow.

Figure 3.2 Nitrate concentrations in Waste Rock Storage Facility water management infrastructure, 2012 to 2025.



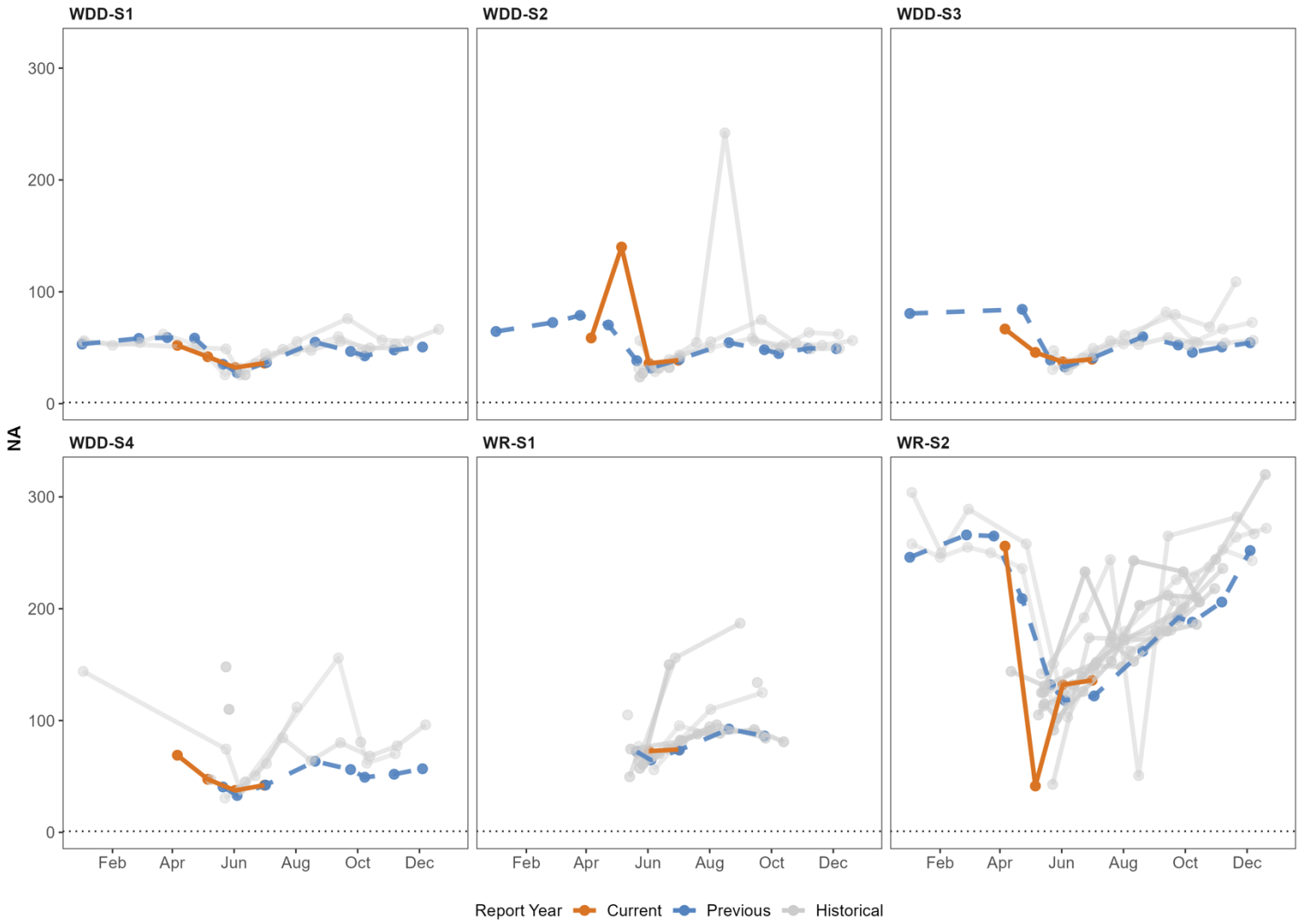
Note: black dotted line represents the detection limit, the orange “current” line represents 2025 results, the blue “previous” line represents 2024 results, and the grey “historical” lines represent 2012 to 2023 results.

Figure 3.3 Total alkalinity in Waste Rock Storage Facility seeps, 2012 to 2025.



Note: black dotted line represents the detection limit, the orange “current” line represents 2025 results, the blue “previous” line represents 2024 results, and the grey “historical” lines represent 2012 to 2023 results. Note samples not collected in some months due to frozen conditions or lack of flow.

Figure 3.4 Total alkalinity in Waste Rock Storage Facility water management infrastructure, 2012 to 2025.



Note: black dotted line represents the detection limit, the orange “current” line represents 2025 results, the blue “previous” line represents 2024 results, and the grey “historical” lines represent 2012 to 2023 results.

3.1.2 Nitrate in Discharges and Receiving Environment

Surface water nitrate concentrations measured in September 2025, representative of conditions during the biological monitoring program are presented in Table 3.1. Similar to previous years, nitrate concentrations at the upstream background station WQ-RCb were substantively lower than the BC WQG FAL, with concentrations recorded at or near detection limits (Table 3.1). Downstream of the NAG WRSF, water from seepage SP7a (upstream of WQ-WCSP) and S13-2 (which is conveyed through WR-S4) have been diverted to the SCSP and pumped to the KS Pit (now the KUG tailing storage facility) since 2020, and no longer directly discharge to WQ-WCSP and Waste Rock Creek. In 2023, further water management mitigations were completed to capture the SP27 seep upstream of WCSP and convey the water to SCSP. As such, nitrate concentrations at WQ-WCSP have substantially decreased since management strategies were implemented, with concentrations since 2023 measuring less than the BC WQG FAL of 3 mg/L. Nitrate concentrations at WR-S4 have also been decreasing since 2020, however concentrations were still greater than BC WQG FAL throughout 2025. Although these concentrations were greater than guidelines, WR-S4 is no longer discharged to Waste Rock Creek and, therefore, has not contributed to nitrate concentrations in Waste Rock Creek. Mann-Kendall temporal statistical analyses indicated an overall decreasing trend in nitrate concentrations at WQ-WCSP and WR-S4 between 2016 and 2025.

In Waste Rock Creek, nitrate concentrations at WQ-14F and WQ-14ds were less than the BC WQG FAL (3 mg/L) throughout 2025(Figure 3.6). Since management strategies were implemented in 2020, nitrate concentrations in Waste Rock Creek have decreased from historic ranges across monitoring stations (Table 3.1). Mann-Kendall temporal statistical analysis also indicated a decreasing trend in nitrate concentrations at WQ-14F and WQ-14ds between 2016 and 2025.

Consistent with previous monitoring years, nitrate concentrations in the Attichika wetlands and Attichika Creek remained less than the BC WQG FAL across monitoring stations (Figure 3.6 and Figure 3.7), with concentrations near or at detection limits throughout 2025. Mann-Kendall temporal statistical analyses indicated a decreasing trend in nitrate concentrations in the Attichika wetlands at ATWL-1A and ATWL-1B between 2015 and 2025, which was consistent with the overall reduced loading of nitrate into the Waste Rock Creek catchment.

Table 3.1 Nitrate (as N) concentrations (in mg/L) in water during biological sampling, September 2019 to 2025.

Station	Station Type	2019	2020	2021	2022	2023	2024	2025	Trend
Upstream Background									
WQ-RCb	Background	0.002	0.003	0.005	0.005	<0.005	<0.005	<0.005	-
Diversion and Collection Ditches									
WQ-EDD	Infrastructure	0.068	0.042	0.015	0.005	0.008	0.0499	0.035	↓
WR-S4	Infrastructure	**12**	**8.2**	**7.3**	**6.2**	**4.9**	**4.4**	**3.74**	↓
WQ-WCSP	Infrastructure	**3.8**	**4.8**	**3.5**	**5.7**	0.40	0.59	0.13	↓
Waste Rock Creek									
WRC-BP	Receiving	**3.4**	**4.4**	-	0.089	<0.005	<0.005	0.0055	-
WQ-14F	Receiving	**3.7**	**5.8**	0.43	0.16	0.019	0.016	0.025	↓
WQ-14ds	Receiving	2.9	**4.4**	1.8	1.5	0.082	0.201	0.071	↓
WRC-5	Receiving	2.8	**4.3**	-	1.6	0.10	0.186	0.10	-
Attichika Wetlands below Waste Rock Creek									
ATWL-1A	Receiving	2.7	2.9	1.9	0.44	0.016	0.028	0.091	↓
ATWL-1B	Receiving	1.6	2.4	-	0.2	0.010	<0.005	0.005	↓
ATWL-3	Receiving	1.5	0.024	-	0.005	<0.005	<0.005	0.022	-
Attichika Creek									
EEM-13	Background	0.002	0.003	0.005	0.005	<0.005	<0.005	<0.005	-
EEM-17	Background	0.007	0.003	0.005	0.005	<0.005	<0.005	0.0089	↓
ATT-IDZ	Receiving	0.076	0.021	0.005	0.013	<0.005	0.0189	0.012	↓
EEM-18	Receiving	0.14	0.03	0.005	0.005	<0.005	0.0129	0.011	↓

Values in **bold** indicate concentrations greater than the BC WQG FAL (3 mg/L).

Values in grey indicate concentrations less than the detection limit.

"-" indicate samples not taken.

Figure 3.5 Nitrate (as N) concentration at the WQ-RCb and infrastructure stations, 2015 to 2025.

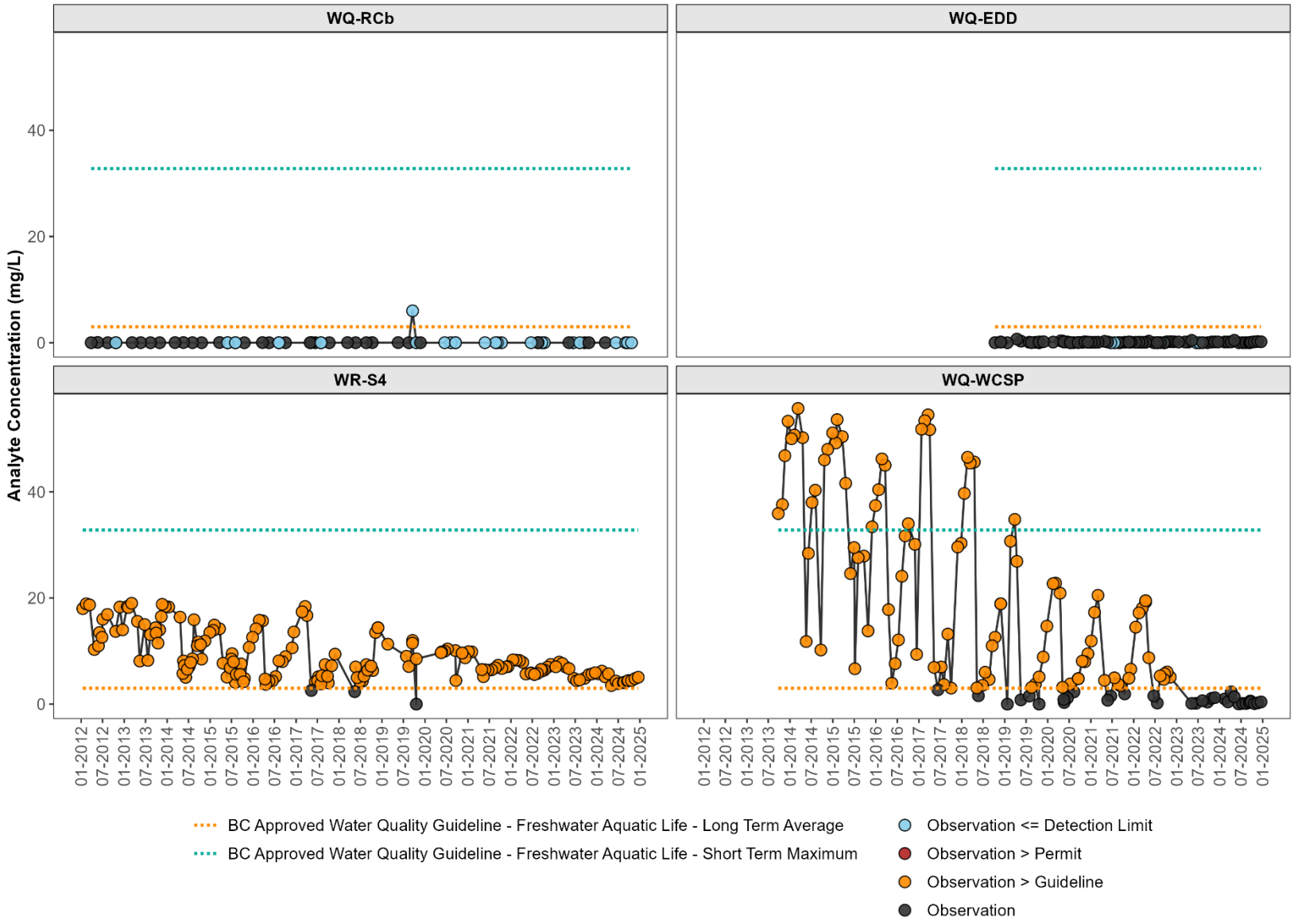


Figure 3.6 Nitrate (as N) concentrations in Waste Rock Creek and Attichika Wetlands, 2015 to 2025.

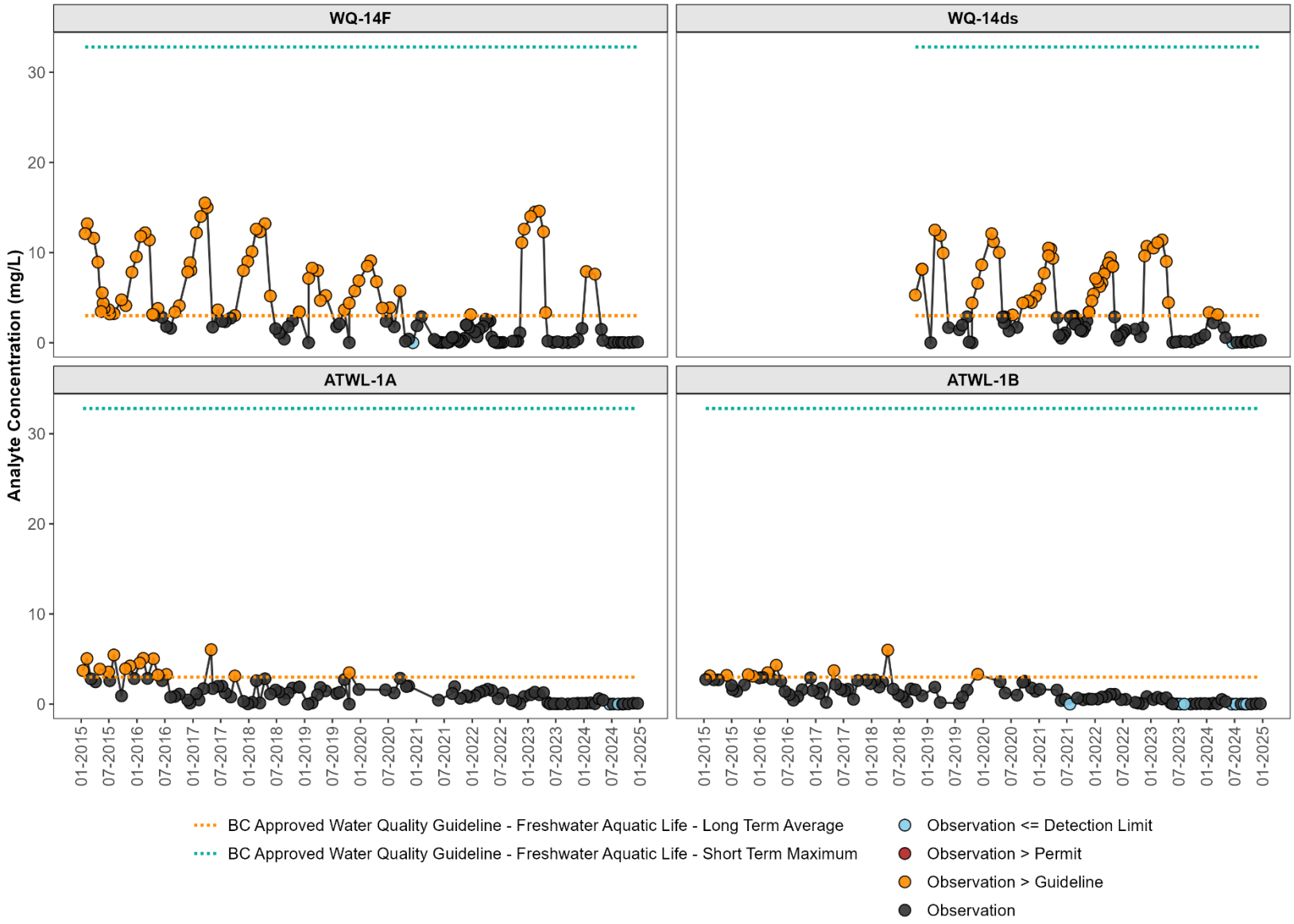
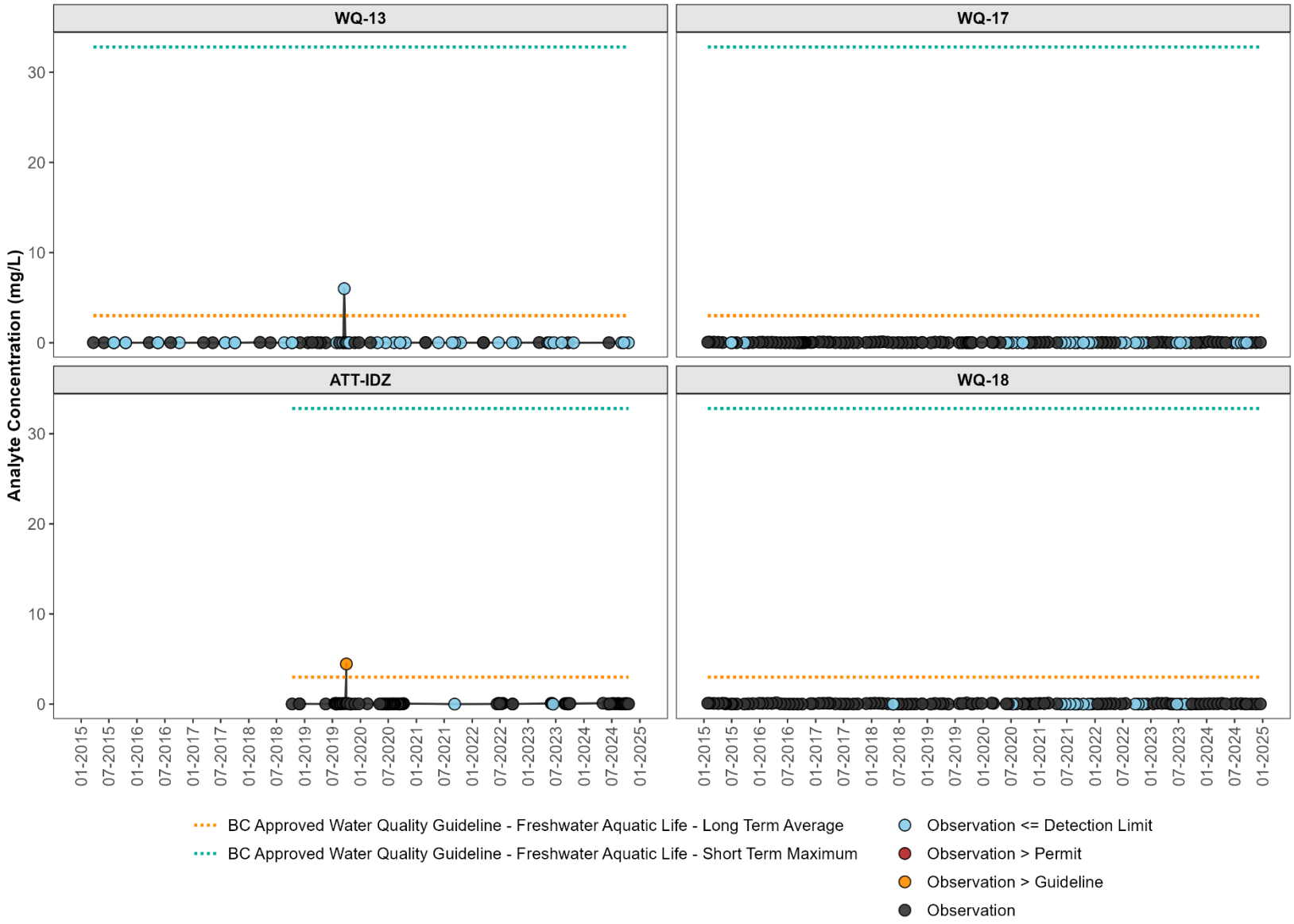


Figure 3.7 Nitrate (as N) concentrations in Attichika Creek, 2015 to 2025.



3.2 PERIPHYTON

3.2.1 Periphyton Community

Periphyton biomass (as chlorophyll-a and AFDW) on cobbles and small boulders was varied within and among stations in 2025 (Figure 3.8 to Figure 3.11). In Waste Rock Creek, chlorophyll-a at WQ-14F was higher, on average, than other stations in Waste Rock Creek, but less than the BC water quality criterion of 10 µg/cm^2. Chlorophyll-a samples collected in lower Waste Rock Creek were less than guidelines in 2025 and reported a similar concentration since 2019.

Historically, periphyton biomass has been the highest at WQ-14F. The decrease in nitrogen concentrations since 2023 due to interception of mine sources, has not resulted in decreases in periphyton biomass at WQ-14F. Nitrogen and/or phosphorus supply may, therefore, not be limiting periphyton productivity at WQ-14F, and elsewhere in Waste Rock Creek, and the observed variation between stations in Waste Rock Creek may therefore be the result of habitat suitability. For example, the WQ-14F station does not have extensive canopy cover on the left bank, which may result in higher light available for photosynthesis. In contrast, WQ-14ds has similar canopy cover, but is located in a depression downstream of the Omineca Access Road and likely receives less light.

Similar trends were observed in periphyton biomass, measured as AFDW, compared to chlorophyll-*a* across monitoring stations in 2025 (Figure 3.9 and Figure 3.11). AFDW concentrations at WQ-14F had a higher mean concentration, compared to samples collected in lower Waste Rock Creek.

An upstream-to-downstream gradient in periphyton biomass was observed in Attichika Creek in 2025 (Figure 3.9 and Figure 3.11). The highest measurements of biomass were observed at EEM-18, which is downstream of Waste Rock Creek discharges via the Attichika Creek wetlands as well as the mine discharges at the Attichika diffusers and via Kemess Creek.

Overall, periphyton biomass (as chlorophyll-*a* and AFDW) measurements in 2025 were generally similar to historical measures across monitoring stations.

Figure 3.8 Periphyton biomass (as chlorophyll-*a*) at NMP lotic stations, September 2025.

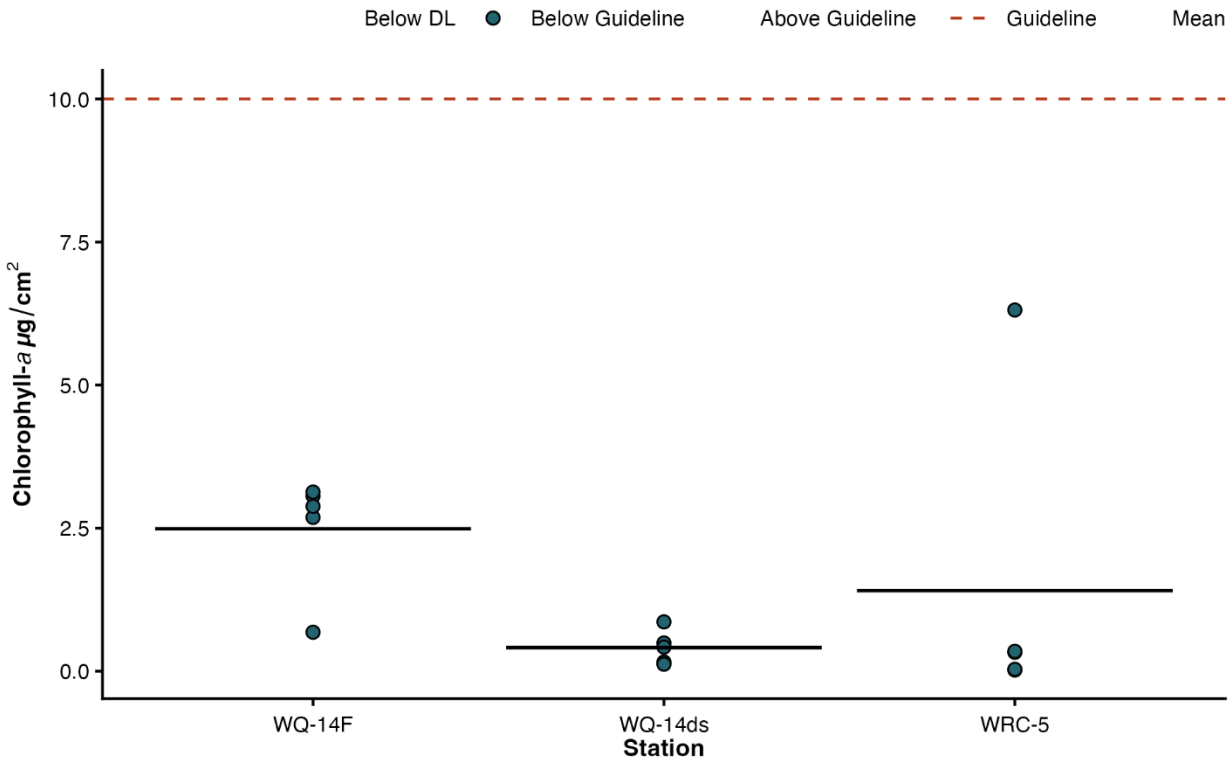


Figure 3.9 Periphyton biomass (as chlorophyll-*a*) in Attichika Creek, September 2025.

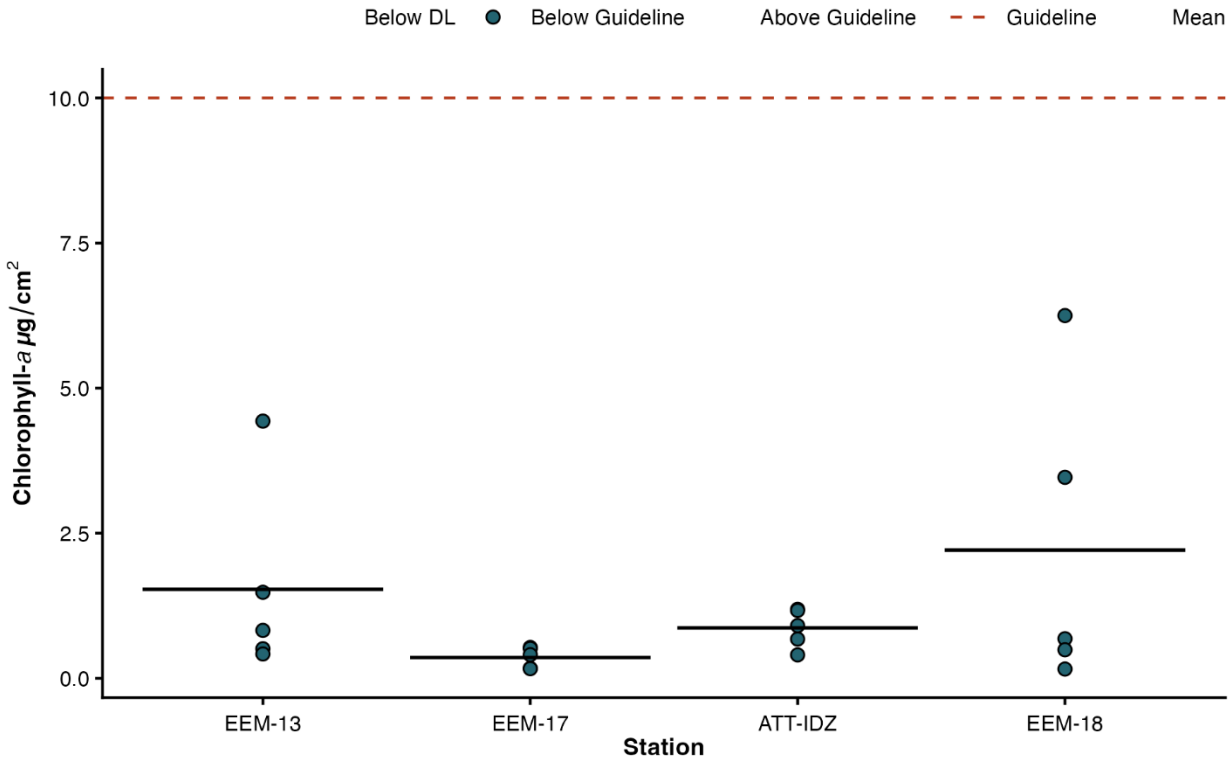


Figure 3.10 Periphyton biomass (as AFDW) at NMP lotic stations, September 2025.

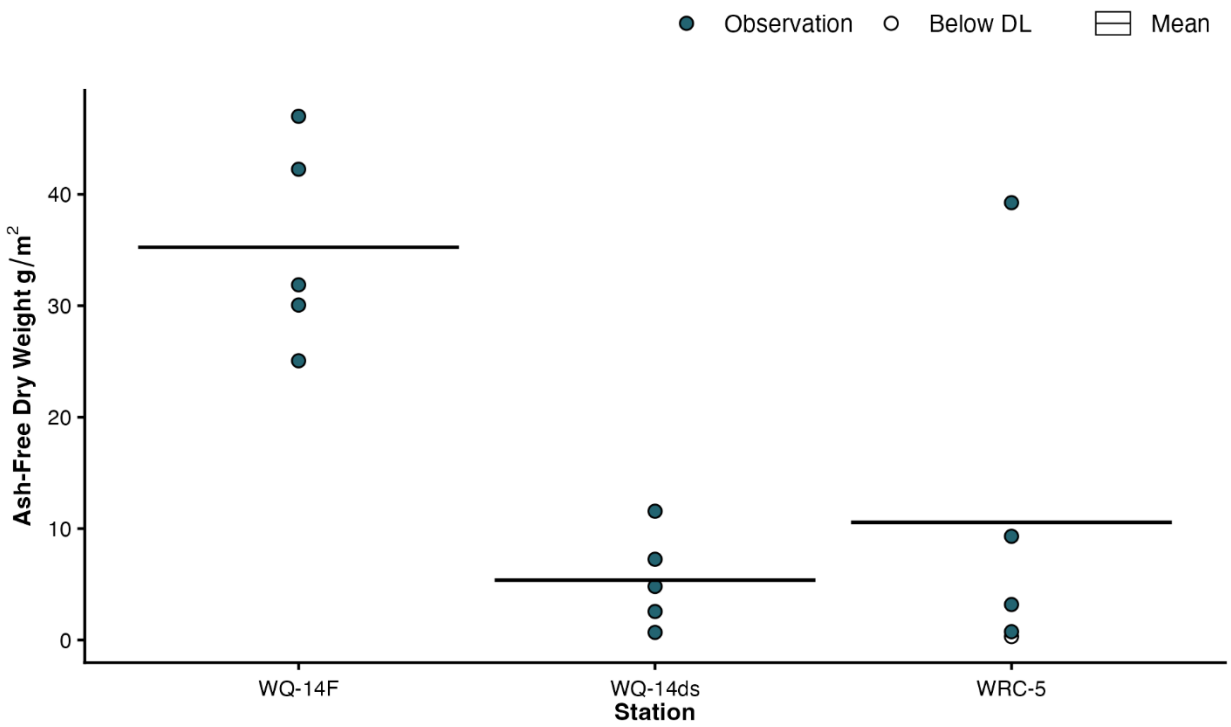


Figure 3.11 Periphyton biomass (as AFDW) in Attichika Creek, September 2025.

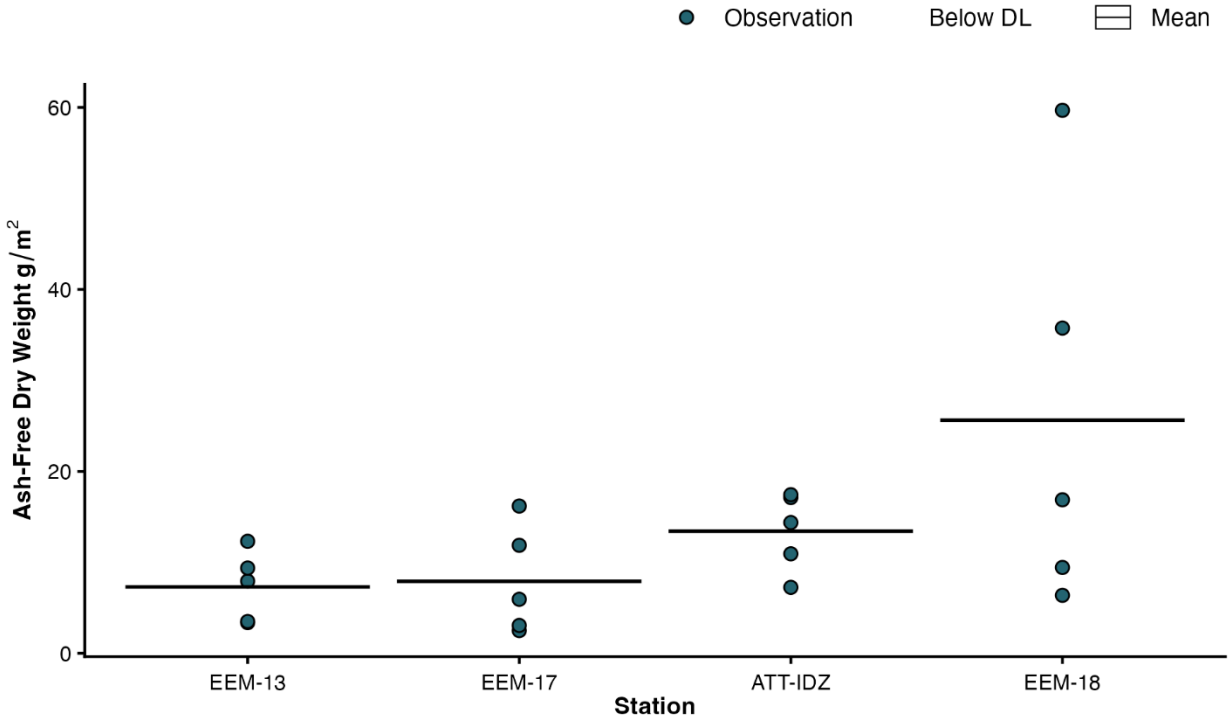
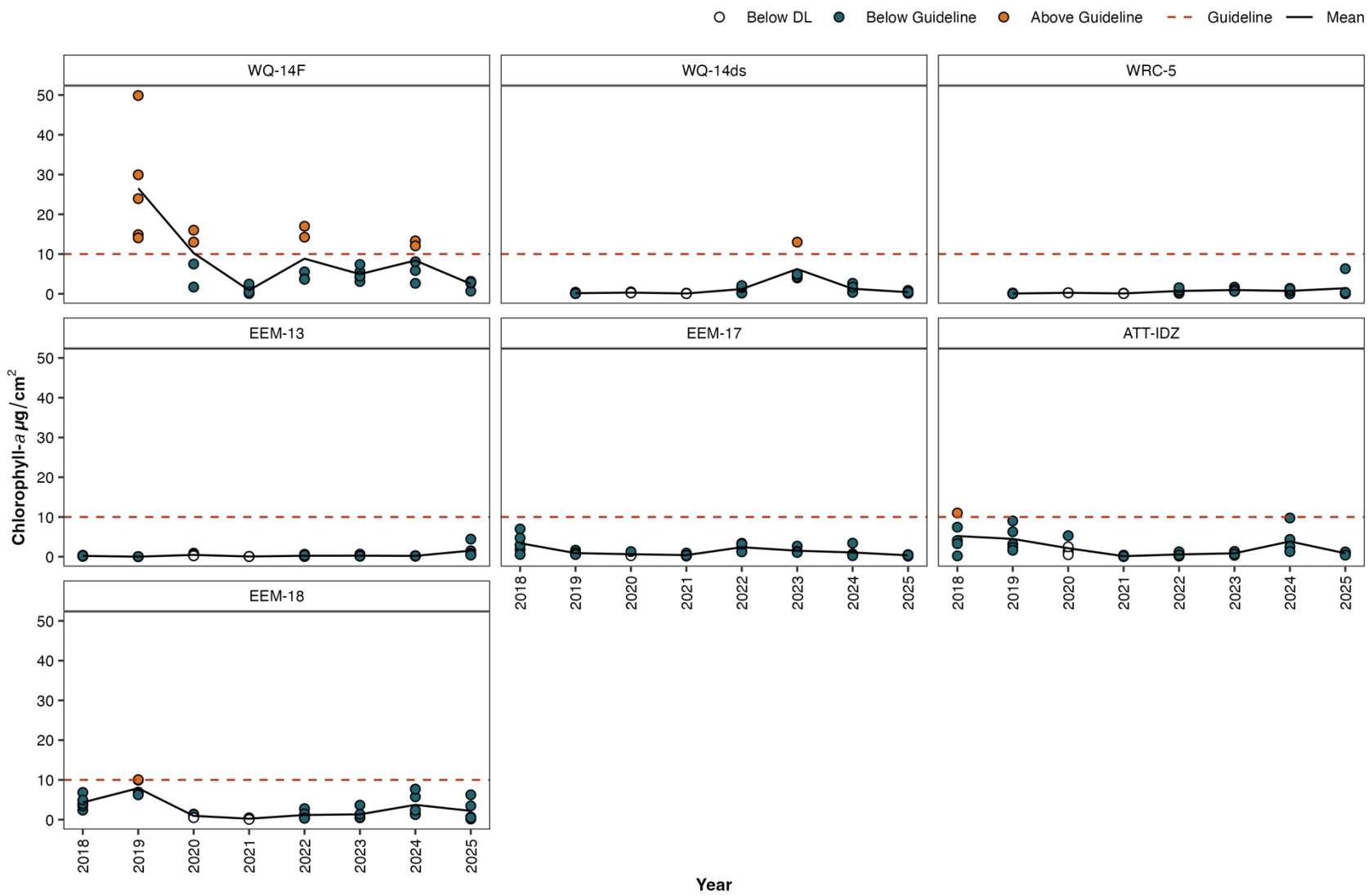


Figure 3.12 Periphyton biomass (as chlorophyll-*a*) at NMP lotic stations in Waste Rock Creek and Attichika Creek, 2019 to 2025.



3.2.2 Nitrate and Periphyton

Consistent with previous years, no clear trends or relationships were observed between periphyton biomass and aqueous nitrate concentrations across stations, however, some differences were observed between waterbodies. In Waste Rock Creek, WQ-14F exhibited highest periphyton biomass, but among the lowest nitrate concentrations relative to other lotic sites in Rock Creek (i.e., WQ-14ds and WRC-5). Similarly, the highest periphyton biomass in Attichika Creek was observed at EEM-18, which did not have the highest nitrate concentrations. These patterns provide support to the hypothesis that habitat conditions, such as light and substrate availability, are more significant drivers of periphyton productivity than the supply of nitrogenous nutrients in Waste Rock Creek and Attichika Creek.

3.3 BENTHIC INVERTEBRATES

3.3.1 Habitat Characteristics

Field-measured habitat characteristics for each benthic invertebrate community monitoring station are summarized in Table 3.2 and Table 3.3, and a selection of station photographs are provided in Appendix A1. The benthic invertebrate dataset and CABIN reports for each station are provided in Appendix A4.

Waste Rock Creek

The Waste Rock Creek wetland complex is located downstream of the WQ-EDD discharge and outlets into Waste Rock Creek. WRC-BP is located within this wetland complex and has experienced a shift in habitat over the years due to beaver activity. In 2025, this ponded area had a recessional water level stage and fine substrates. Vegetation within the wetland consisted of 26 to 50% submergent vegetation, with no emergent or floating vegetation present, or presence of algae. Along the wetland margins, grasses, ferns, shrubs and coniferous trees were present. Due to the dominance of grasses and ferns, canopy cover over the wetland was minimal.

Waste Rock Creek is a small, meandering creek situated between the Waste Rock Creek wetlands to the north and Attichika wetlands to the south. All four stations in Waste Rock Creek were characterized by riffle habitat, with run habitat present at WQ-14F, and pools/back eddies present in lower Waste Rock Creek at WQ-14ds, and WRC-5. Substrates were dominated by unembedded cobbles and pebbles, with gravels in the interstitial spaces. At the time of sampling in 2025, physical channel features were relatively similar across stations in lower Waste Rock Creek, with bankfull and wetted width ranging from 1.9 to 2.2 m, average depth ranging from 7.6 to 11 cm, and average velocity ranging from 0.24 to 0.35 m/s. In upper Waste Rock Creek at WQ-14F, bankfull and wetted widths were slightly smaller at 1.1 m and 0.9 m, respectfully, however the average depth and velocity were similar at 9.4 cm and 0.33 m/s, respectfully.

Shrubs were the dominant streamside vegetation in lower Waste Rock Creek whereas coniferous trees were dominant at WQ-14F. Coniferous trees, deciduous trees, shrubs, and grasses/ferns were present across all stations. Canopy cover ranged from 1 to 25% at WQ-14F and WQ-14ds, and from 26 to 50% at WRC-3 and WRC-5. In upper Waste Rock Creek at WQ-14F, instream vegetation consisted of numerous large clumps of algae (5 mm to 2 cm thick), with a presence of macrophytes (i.e., aquatic vascular plants, 1 to 25%). In contrast, in lower Waste Rock Creek, macrophytes were not present, and periphyton coverage was minimal (<0.5 mm thick) at WRC-3 and WRC-5 to moderately thick (0.5 to 1 mm).

Table 3.2 Habitat characteristics of lotic benthic invertebrate sampling stations, September 2025.

	Waste Rock Creek			Attichika Creek			
Habitat Characteristics	**WQ-14F**	**WQ-14ds**	**WRC-5**	**EEM-13**	**EEM-17**	**ATT-IDZ**	**EEM-18**
Habitat Type Present							
Riffles	Y	Y	Y	Y	Y	N	Y
Rapids	N	N	N	N	Y	N	N
Straight Run	Y	N	N	Y	N	Y	Y
Pool/Back Eddy	N	Y	Y	N	N	N	N
In Situ Water Chemistry							
pH (pH unit)	8.2	7.9	8.0	7.6	7.9	7.8	7.8
Dissolved Oxygen (mg/L)	10	11	13	10	9.6	10	10
Water Temperature (°C)	7.2	6.7	7.0	8.2	7.2	7.9	8.0
Specific Conductivity (µS/cm)	308	242	266	86	135	204	198
Physical Channel Features							
Bankfull Width (m)	1.1	1.9	1.9	23	25	29	31
Wetted Width (m)	0.9	1.9	1.9	12	21	27	14
Average Depth (cm)	9.4	11	8.5	28	24	34	34
Average Velocity (m/s)	0.33	0.24	0.35	0.53	0.86	0.63	0.50
Instream and Streamside Vegetation							
Periphyton Coverage (Category1-5)[1]	4	2	1	2	3	3	3
Macrophyte Coverage (%)	1-25	0	0	1-25	0	1-25	0
Canopy Coverage (%)	26-50	26-50	1-25	1-25	1-25	1-25	0
Dominant Streamside Vegetation	Coniferous trees	Shrubs	Shrubs	Shrubs	Coniferous trees	Shrubs	Shrubs
Coniferous Trees Present	Y	Y	Y	Y	Y	Y	Y
Deciduous Trees Present	Y	Y	Y	N	N	N	N
Shrubs Present	Y	Y	Y	Y	Y	Y	Y
Grasses/Ferns Present	Y	Y	Y	Y	Y	Y	Y
Substrate Classification							
Dominant Substrate	Small cobble	Large pebble	Large pebble	Large pebble	Large cobble	Large pebble	Small pebble
Sub-dominant Substrate	Small pebble	Small cobble	Small cobble	Small cobble	Small cobble	Small cobble	Small cobble
Surrounding Material	Small gravel	Small gravel	Small gravel	Sand	Sand	Sand	Sand
Median Embeddedness	Unembedded	Unembedded	Unembedded	Unembedded	1/4 embedded	Unembedded	Unembedded

[1] Periphyton coverage on substrate include: (1) substrate slimy, no obvious colour, thin layer <0.5 mm thick; (2) yellow-brown to light green colour, 0.5-1 mm thick; (3) patches of thicker green to brown algae, 1-5 mm thick; (4) numerous large clumps of green to dark brown algae, 5 mm to 2 cm thick; (5) rocks mostly obscured by algal mat, extensive green, brown to black algal mass may have long strands, >2 cm thick.

Table 3.3 Habitat characteristics of lentic benthic invertebrate sampling stations, September 2025.

Habitat Characteristics	Waste Rock Creek Wetland	Attichika Wetlands		
	WRC-BP	ATWL-1a	ATWL-1b	ATWL-3
Geographical Description				
Land Uses	Forest/Mining	Forest	Forest	Forest
Dominant Land Use	Mining	Forest	Forest	Forest
Wetland Characteristics (Whole Wetland)				
Hydrological Type	Basin/Pond/Pool	Riverine	Riverine	Riverine
Water-Level Stage	Recessional[1]	Flooded[1]	Flooded[1]	Full
In Situ Water Chemistry				
Specific Conductivity (µS/cm)	370	213	199	192
Dissolved Oxygen (mg/L)	10	7.0	9.3	9.4
pH (pH unit)	7.6	7.1	7.8	8.1
Water Temperature (°C)	6.5	8.9	6.6	5
Vegetation Cover				
Higher Plants				
Emergent (%)	0	26-50	6-25	6-25
Floating (%)	0	0	0	1-5
Submergent (%)	26-50	6-25	26-50	51-75
Algae / Cyanobacteria				
Algal Bloom and/or Cyanobacterial Bloom Present	Absent	Absent	Absent	Absent
Filamentous Algae Present	Absent	-	Absent	Present
Biofilm Present	Absent	Absent	Absent	Absent
Marginal Wetland				
Ferns / Grasses / Sedges Present	Y	Y	Y	Y
Shrubs Present	Y	Y	Y	Y
Deciduous Trees Present	N	Y	Y	Y
Coniferous Trees Present	Y	Y	Y	Y
Agricultural Crops Present	N	N	N	N
Dominant Wetland Marginal Vegetation	Ferns / Grasses / Sedges	Ferns / Grasses / Sedges	Coniferous trees	Ferns / Grasses / Sedges
Canopy Cover / Shading	Not shaded	Partially shaded	Partially shaded	Not shaded
Managed Buffer Strip	Absent	Natural setting, no buffer	Natural setting, no buffer	Natural setting, no buffer
Substrate Classification				
Dominant Substrate	Sand/Silt/Clay (<0.1 cm)	Sand/Silt/Clay (<0.1 cm)	Sand/Silt/Clay (<0.1 cm) + Gravel (0.2-1.6 cm)[2]	Sand/Silt/Clay (<0.1 cm)

"-" indicates value was not recorded.

[1] As a result of beaver activity.

[2] Silt on top with gravel underneath.

In-situ water chemistry in Waste Rock Creek were similar across stations. Specific conductivity ranged between 242 to 308 µS/cm, dissolved oxygen ranged between 10 to 13 mg/L, pH was between 7.9 to 8.3, and water temperature was between 6.7 to 8.2°C.

Attichika Wetland

The Attichika Wetlands are located between Waste Rock Creek and Attichika Creek. ATWL-1A and ATWL-1B are located downstream of the outlet with Waste Rock Creek, whereas ATWL-3 is located just upstream of the confluence with Attichika Creek. There is frequent and extensive beaver activity in the wetlands, leading to annual shifts in habitat. In 2025, ATWL-1A and ATWL-1B were flooded, whereas ATWL-3 was considered to have a fill water level stage. Instream vegetation varied between stations, with ATWL-1A having 26 to 50% emergent and 6 to 25% submergent vegetation, ATWL-1B consisting of 6 to 25% emergent and 26 to 50% submergent vegetation, and ATWL-3 consisting of 6 to 25% emergent, 51 to 75% submergent, and 1 to 5% floating vegetation.

Visible algae was absent from monitoring stations, with the exception of filamentous algae at ATWL-3. Along the wetland margins, grasses, ferns, shrubs, coniferous trees, and deciduous trees were present. Due to the dominance of grasses and ferns at ATWL-3, canopy cover over the wetland was minimal. In contrast, ATWL-1A and ATWL-1B are partially shaded due to their smaller size and the presence of coniferous trees.

Attichika Creek

Attichika Creek is a large, meandering river with several cobble point bars and braided sections between the uppermost reference station and the far-field exposure station. EEM-13 and EEM-18 are characterized by riffle-run habitat, whereas ATT-IDZ is characterized by straight run habitat, and EEM-17 is characterized by riffle habitat with small rapids present downstream end of the CABIN reach. Substrate were dominated by unembedded to slightly embedded (25%) small cobbles to large pebbles, with sand filling interstitial spaces. At the time of sampling, bankfull widths, wetted widths, and average channel depths ranged from 23 to 31 m, 12 to 27 m, and 24 to 34 cm, respectively. Average channel velocity was 0.5 to 0.6 m/s at EEM-13, ATT-IDZ, and EEM-18, whereas average velocity was higher at EEM-17 at 0.9 m/s.

Periphyton and macrophyte coverage were recorded as a measure of instream vegetation. Macrophyte abundance was low across stations, with 0% coverage at EEM-17 and EEM-18, and less than 25% coverage at EEM-13 and ATT-IDZ. Periphyton coverage on substrates was marginal at EEM-13, with yellow-brown to light green colour periphyton ranging from 0.5 to 1 mm thick. In contrast, all other stations were observed with patches of thicker green to brown periphyton ranging from 1 to 5 mm thick.

Streamside vegetation was similar across stations, with coniferous trees, shrubs, grasses, and ferns present at all stations. Shrubs were the dominant streamside vegetation at EEM-13, ATT-IDZ, and EEM-18, whereas coniferous trees were dominant at EEM-17. Due to the dominance of shrubs and coniferous trees lining a large creek, canopy coverage was low across stations, ranging from 0 to 25%.

Water temperature, dissolved oxygen and pH were very similar between stations in 2025, ranging from 7.2 to 8.2 °C, 9.2 to 10 mg/L, and 7.5 to 7.9 pH, respectively. Conversely, specific conductivity was substantially higher downstream of the confluence with Kemess Creek relative to the reference station with conductivity

ranging from 135 to 204 µS/cm downstream of Kemess Creek as compared to 86 µS/cm at EEM-13. Mine effluent often contains various dissolved substances, such as sulphate, chloride, and metal ions, which can increase total dissolved solids in water, thereby increasing its specific conductivity.

3.3.2 Benthic Invertebrate Community

In the lotic receiving environment, the benthic invertebrate community was abundant and diverse (Table 3.4). Taxonomic richness and diversity were relatively high at the lotic monitoring stations in Waste Rock Creek. WQ-14ds and WRC-5 in Waste Rock Creek also had the greatest proportion of EPT taxa that are considered more sensitive to pollution and disturbance. Further downstream into Attichika Creek, the benthic community was generally similar to Waste Rock Creek but EEM-17 and ATT-IDZ did have lower evenness and diversity. However, these locations on Attichika Creek are upstream of Waste Rock Creek, and these differences in evenness and diversity were not associated with selenium loading via Waste Rock Creek. The Beaver Pond and Attichika Wetlands stations (i.e., WRC-BP, ATWL-1A, ATWL-1B, and ATWL-3) had much lower metrics, consistent with the different habitat conditions and resident organisms.

Table 3.4 Benthic invertebrate community metrics at NMP lotic and lentic stations, September 2025.

Station	Station Type	Sampling Method	Total Abundance (organisms/ sample)	Evenness	Simpson's Diversity Index	Taxa Richness (families/ sample)	% EPT
Reference Wetland							
LREF-1	Background	Ekman	2,800	0.14	0.28	10	1.1
Waste Rock Creek							
WRC-BP	Receiving	Ekman	3,500	0.16	0.097	7	0.3
WQ-14F	Receiving	CABIN	4,400	0.11	0.63	24	23
WQ-14ds	Receiving	CABIN	3,800	0.30	0.83	19	94
WRC-5	Receiving	CABIN	4,100	0.35	0.85	19	92
Attichika Wetland							
ATWL-1A	Receiving	Ekman	1,100	0.24	0.40	7	0.3
ATWL-1B	Receiving	Ekman	140	0.27	0.75	15	2
ATWL-3	Receiving	Ekman	1,200	0.12	0.43	14	0.5
Attichika Creek							
EEM-13	Background	CABIN	1,600 ± 530	0.15 ± 0.01	0.69 ± 0.02	22 ± 2	40 ± 4
EEM-17	Background	CABIN	3,200 ± 1,100	0.18 ± 0.11	0.70 ± 0.20	25 ± 3	44 ± 24
ATT-IDZ	Receiving	CABIN	4,900 ± 2,900	0.17 ± 0.08	0.63 ± 0.22	20 ± 2	42 ± 21
EEM-18	Receiving	CABIN	2,900 ± 1,100	0.33 ± 0.08	0.86 ± 0.02	23 ± 4	80 ± 3

Attichika Creek metrics shown as mean +/- standard deviation of five replicate kicks

EPT = Ephemeroptera, Plecoptera, Trichoptera

Benthic invertebrate community composition results for lotic stations in 2025 are presented in Figure 3.13. Consistent with typical lotic environments in the region, benthic invertebrate communities collected at the lotic sampling stations were primarily comprised of Diptera (chironomids, true flies), Ephemeroptera

(mayflies), Plecoptera (stoneflies), Trichoptera (caddisflies), and Chelicerata (water mites). Chelicerata and dipterans were particularly dominant at WQ-14F, which may be related to the increased periphyton biomass. Relative abundances of these major taxonomic groups varied among sampling stations (Figure 3.14 and Figure 3.15). Some of these variances are likely to be associated with differences in habitat characteristics of the sampling stations.

The stations in Waste Rock Creek have generally maintained a more stable benthic community over time with WQ-14ds and WRC-5 consistently having greater relative abundances of EPT taxa, despite variation in nitrate concentrations (Figure 3.14). Little evidence of nitrate-related changes in community composition were apparent in the time-series; despite substantial changes in nitrate concentrations (e.g., more than 1.5 mg/L at WQ-14ds and WRC-5 in 2022 to less than 0.1 mg/L in 2025). The Attichika Creek stations were more variable than Waste Rock Creek but remained within historical ranges in 2025 (Figure 3.15).

Classification results of the BEAST analysis based on the environmental characteristics at each station are presented in Table 3.5. Stations were classified as ***mildly divergent*** from their respective CABIN reference group. However, the BEAST analysis results should be considered with caution, as discussed in previous reports. The classification probabilities of the Waste Rock Creek stations were high, but only EEM-13 were classified to reference Group 4 that includes Omineca Mountains ecogroup reference stations (Table 3.5). However, the other Attichika Creek stations (EEM-17, ATT-IDZ, and EEM-18) had similar probabilities for group membership to Group 2 and Group 4. Therefore, EEM-17, ATT-IDZ, and EEM-18 were compared to Group 4. Replicates from these stations were ***similar to reference*** or ***mildly divergent***. The mild divergence between the Waste Rock Creek stations and the CABIN Reference Group 3, which are characterized by large drainage area and relatively high annual temperatures, were not indicative of impairments in habitat suitability in Waste Rock Creek.

Table 3.5 Results of CABIN ordination analyses of benthic invertebrate community data collected, September 2025.

Station	CABIN Reference-Group Membership[1]	Probability of Group Membership	BEAST Effects Assessment
Waste Rock Creek			
WQ-14F	3	99%	Mildly Divergent
WQ-14ds	3	99%	Mildly Divergent
WRC-5	3	99%	Mildly Divergent
Attichika Wetland			
EEM-13	4	51%	Divergent
EEM-17	2	42%	Mildly Divergent
ATT-IDZ	2	42%	Similar to Reference
EEM-18	2	42%	Similar to Reference

[1] There are four outcomes of the BEAST effects assessment: Reference, Mildly Divergent, Divergent, and Highly Divergent.

[2] EEM-17, ATT-IDZ, and EEM-18 were grouped in Group 2. They had similar probabilities of sorting into Group 4 and the high error rate for Group 4 led to grouping these stations with CABIN Group 4 for the BEAST effects assessment.

[3] One of the five replicate kicknet samples at ATT-IDZ was Divergent from CABIN reference Group 4.

Figure 3.13 Abundance of major benthic invertebrate taxonomic groups at lotic stations in Waste Rock Creek and Attichika Creek, 2025.

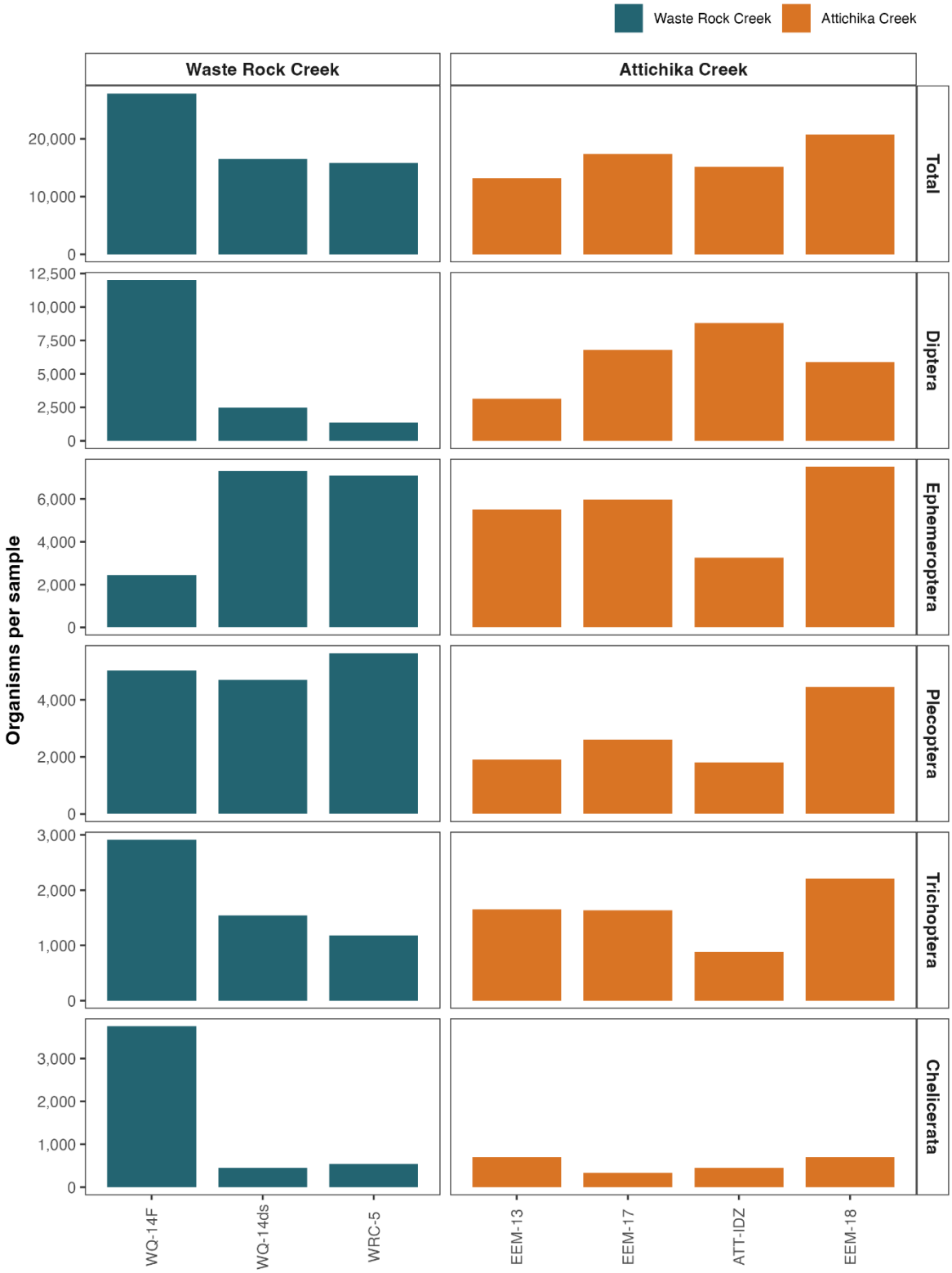


Figure 3.14 Relative abundance/composition of major benthic invertebrate groups in Waste Rock Creek lotic stations, 2019 to 2025.

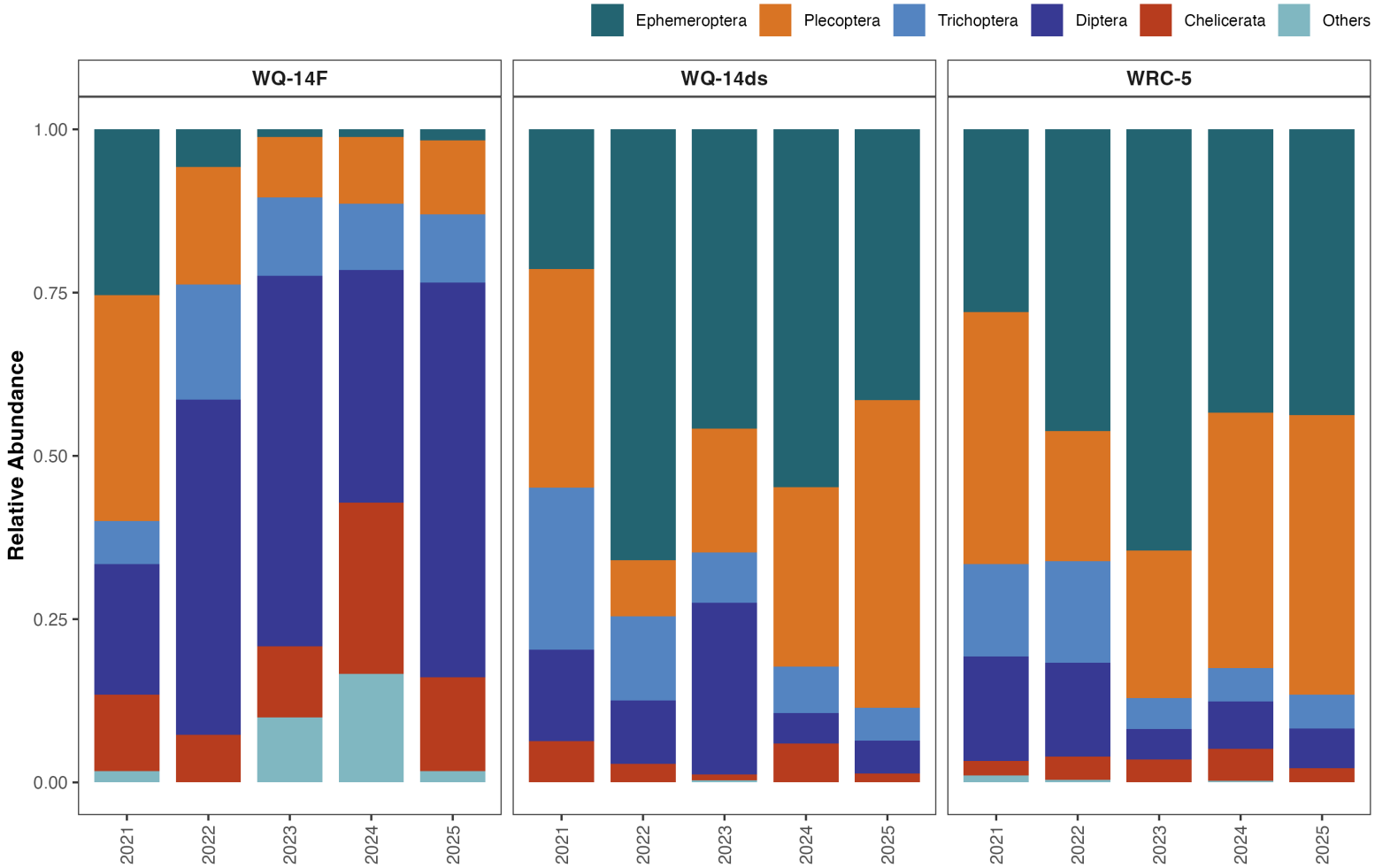
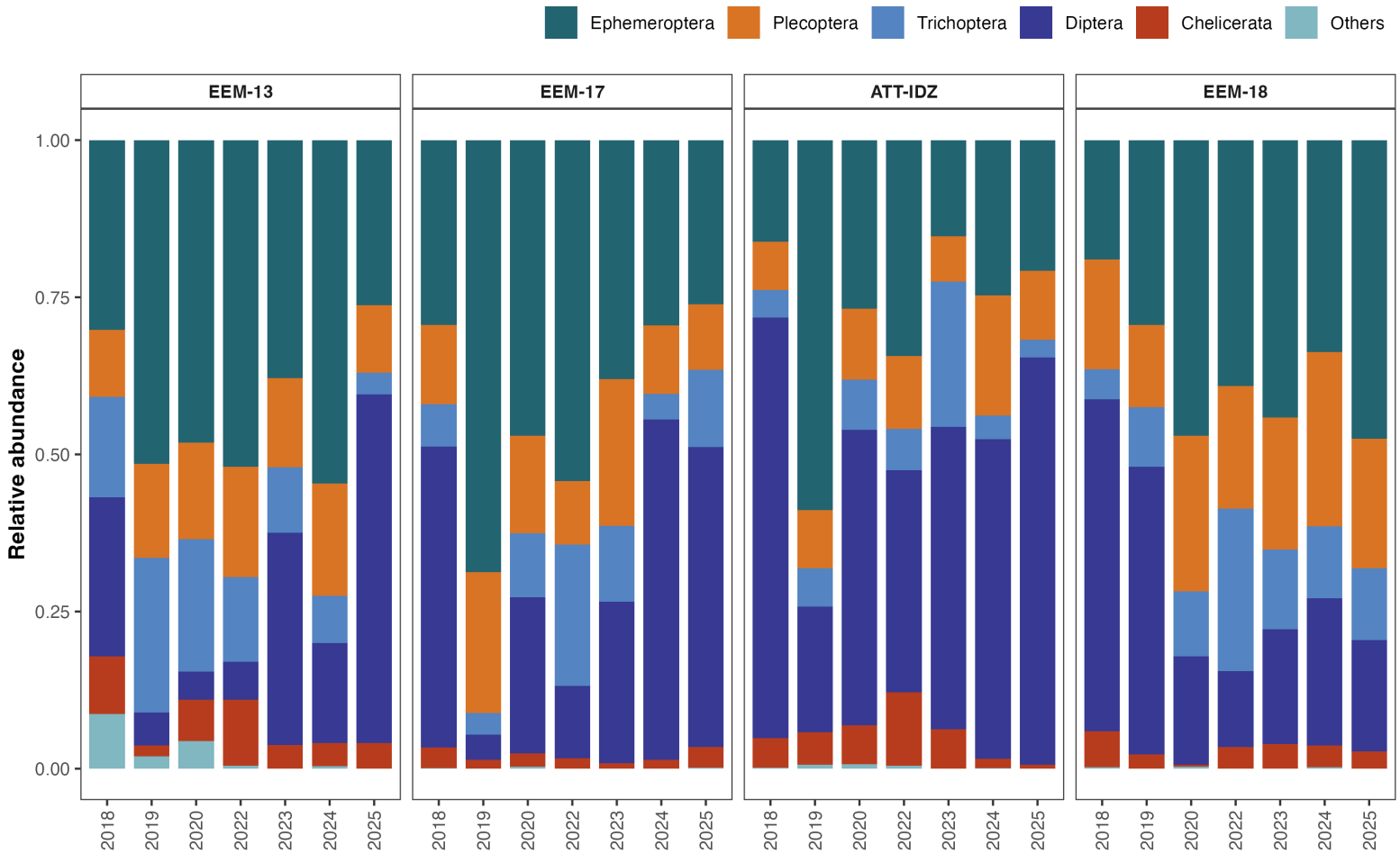


Figure 3.15 Relative abundance/composition of major benthic invertebrate groups in Attichika Creek lotic stations, 2018 to 2025.



Samples in 2018, 2021 and 2024 represent the mean of five (5) CABIN kick replicates.

Others includes all other taxon groups, such as Trombibiformes, Veneroida, Tubificida, Lumbriculida, and Sacroptiformes that are not included in Diptera, Ephemeroptera, Plecoptera, Trichoptera, and Chelicerata.

Consistent with typical lentic water bodies in the region, invertebrate communities at lentic stations in 2025 were mainly composed of true flies (Diptera), segmented worms (Oligochaeta), and freshwater clams (Bivalvia; Figure 3.16). Dipterans dominated the benthic community at WRC-BP, reflecting the low evenness and diversity metrics. Diptera was also the most dominant taxon at ATWL-1A and ATWL-1B and Oligochaeta was the most dominant taxon at ATWL-3. These patterns were slightly different from those observed in previous years, but generally fall within the historical range of variation in lentic benthic invertebrates sampled at those stations since 2014 (Figure 3.17).

HBI estimates the overall tolerance of the benthic invertebrate community to organic pollution, with lower values indicating less organic pollution and lower abundance of pollution-tolerant taxa (Hilsenhoff 1987). Of the lotic stations, HBI values at WQ-14ds, WRC-5, and EEM-18 had a water quality threshold of ***excellent***, whereas EEM-13, EEM-17, and ATT-IDZ, were classified as ***good*** to ***very good*** (Figure 3.18 and Figure 3.19). The lotic station with the worst index was WQ-14F (***fairl***), located immediately downstream of the Waste Rock Creek wetlands, due to the relative dominance of dipterans and water mites. For completeness, HBI values were calculated for lentic stations, with all judged ***fairly poor*** to ***very poor*** by HBI. However, these values should be considered with caution because the HBI was intended for lotic systems. Dipterans, oligochaetes, and bivalves, favoured in lentic environments, contribute to high HBI values.

Figure 3.16 Abundance of major benthic invertebrate groups in lentic stations, 2025.

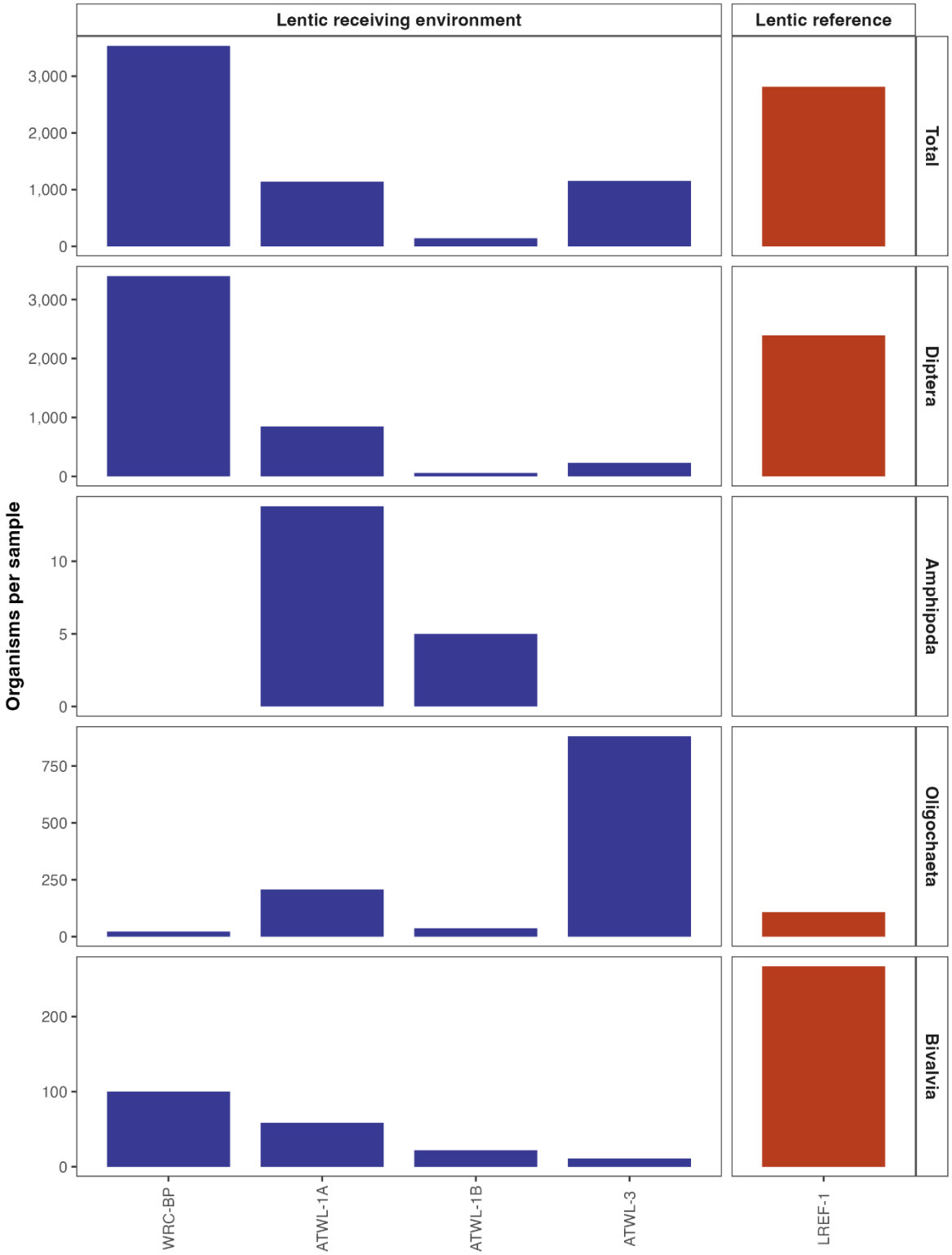


Figure 3.17 Relative abundance/composition of major benthic invertebrate groups in lentic stations, 2014 to 2025.

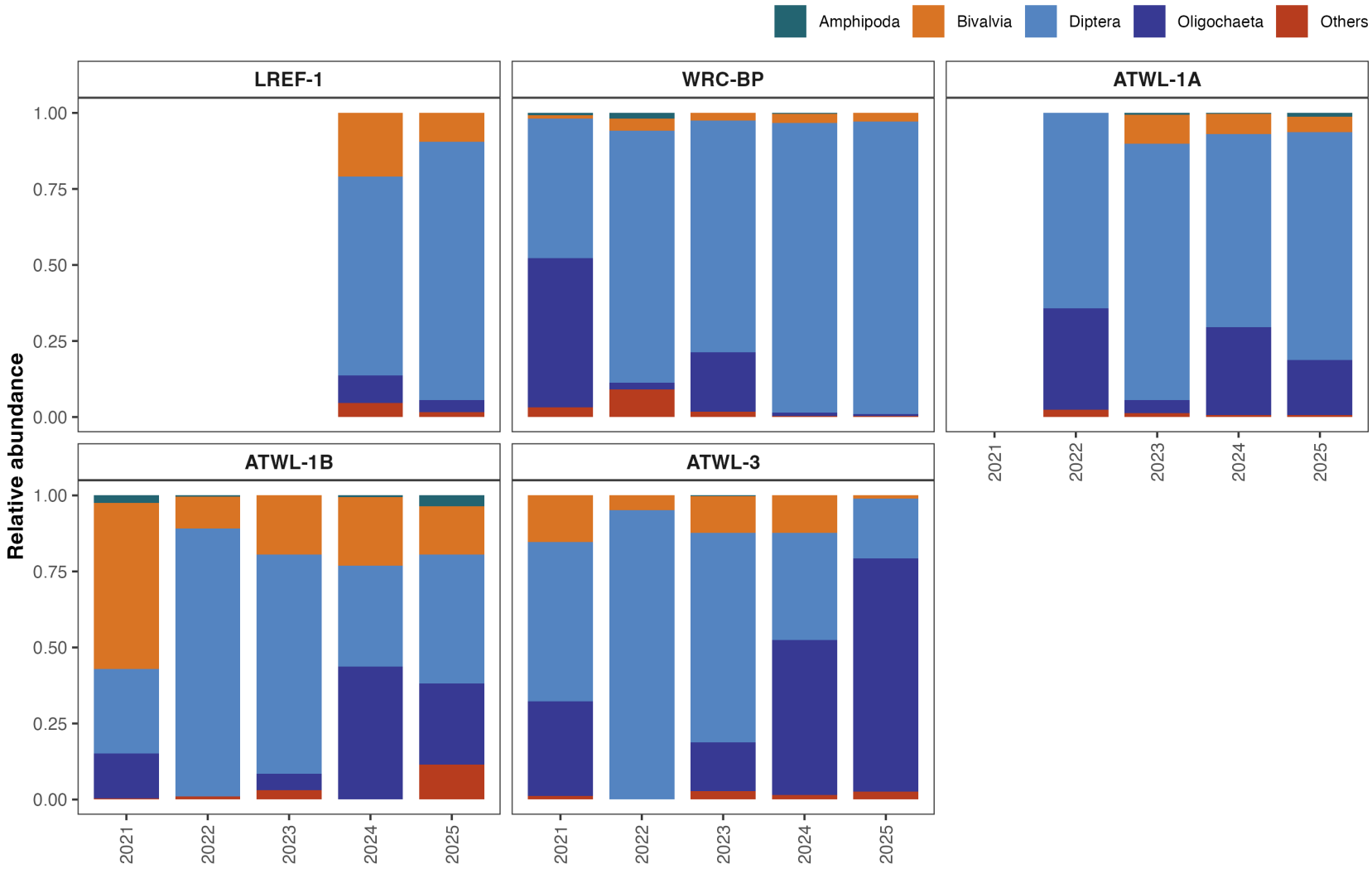


Figure 3.18 Hilsenhoff Biotic Index, representing proportion of pollution-tolerant taxa, at Waste Rock Creek stations, September 2025.

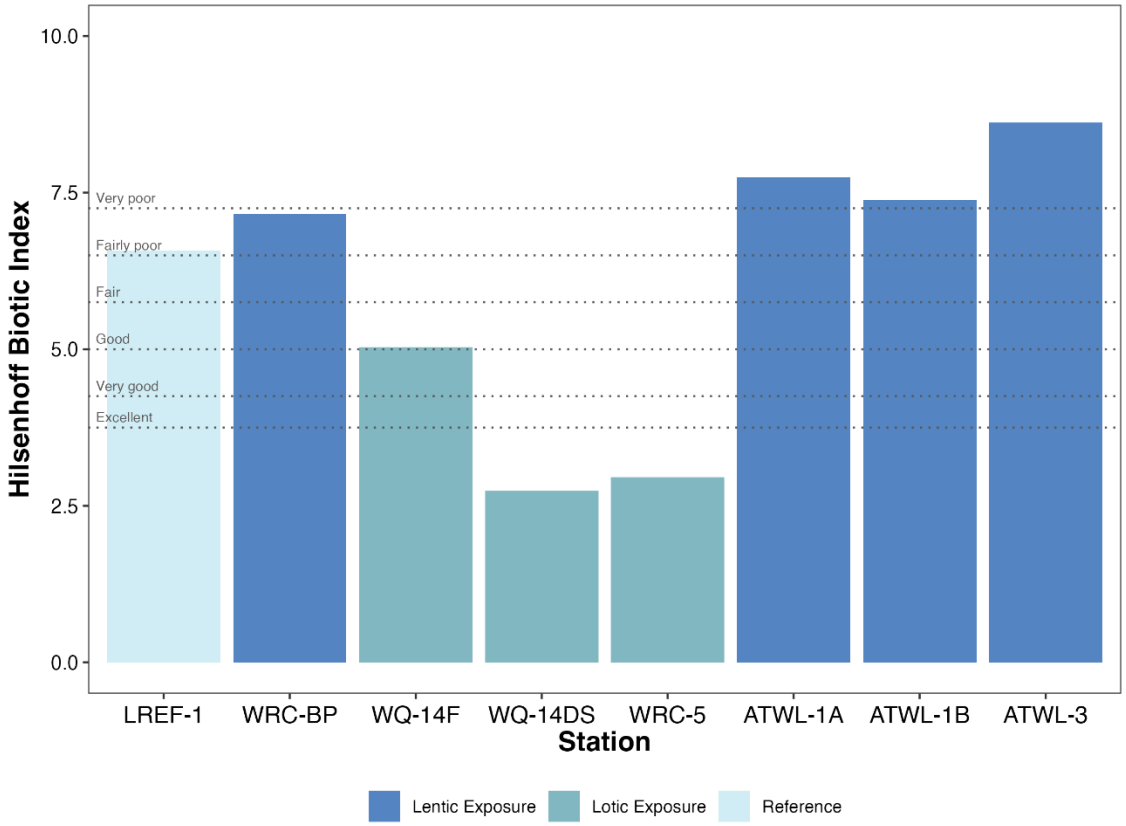
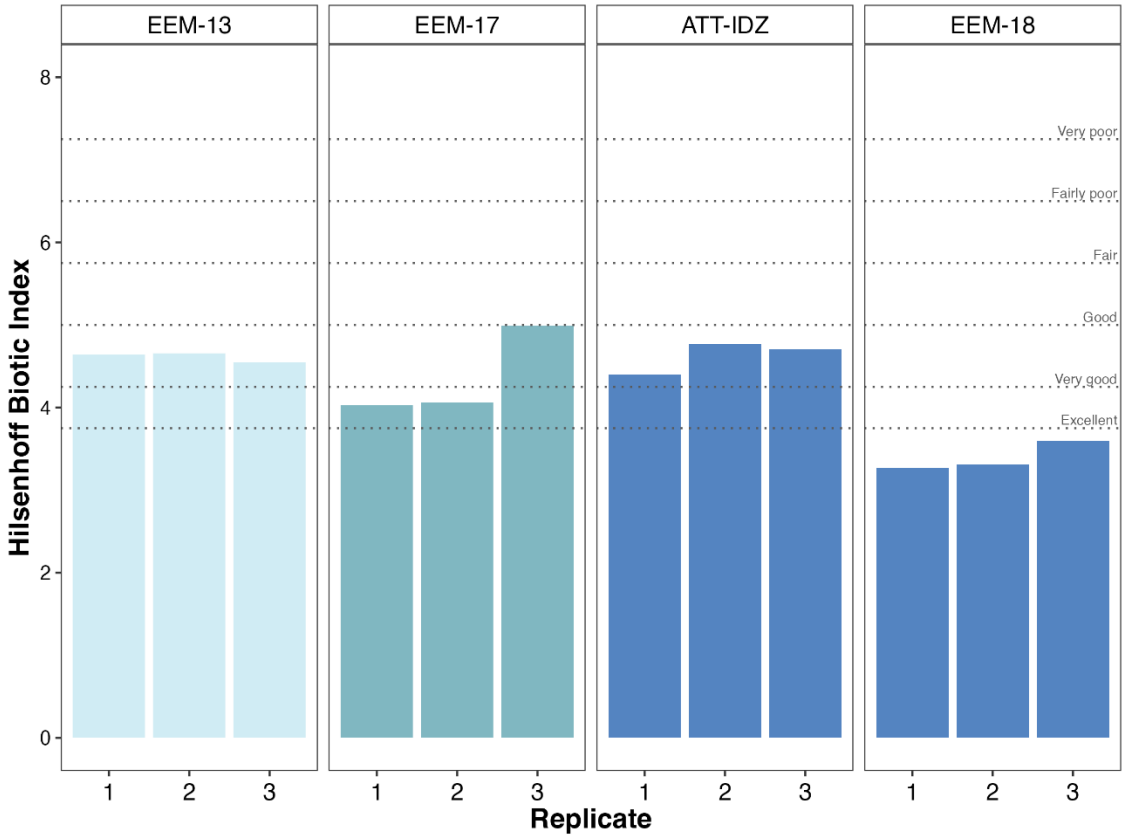


Figure 3.19 Hilsenhoff Biotic Index, representing proportion of pollution-tolerant taxa, at Attichika Creek stations, September 2025.



4.0 SYNTHESIS

The 2025 Kemess NMP assessed the physical and biological conditions of aquatic environments within and near the footprint of the KS Mine to determine potential impacts of nitrate associated with seepage from the NAG WRSF, and to support the implementation of adaptive management and mitigation strategies, if required. Potential effects were evaluated through temporal and spatial comparisons of water, periphyton, and benthic invertebrate data collected at upstream background, infrastructure, and receiving environment stations.

The water management optimizations and mitigation measures, implemented in 2023 and 2024, have greatly reduced nitrate loading to the aquatic environment. As a result, nitrate concentrations in Waste Rock Creek met the compliance targets of the BC WQG FAL of 3.0 mg/L throughout 2025. Furthermore, the biological monitoring did not find consistent evidence for nitrate-related effects to periphyton and benthic invertebrate community composition or abundance. Variation in the abundance and community composition of both of these key components of the aquatic food web was attributed to differences in habitat conditions. Results of the monitoring program are summarized in Table 4.1.

No additional mitigation or management measures for nitrogen loading from the WRSF are recommended; the NMP and its monitoring program is sufficient to meet its overall objectives. The monitoring network at seeps, discharge locations, and in the receiving environment is expected to continue to provide sufficient information to identify unforeseen changes in nitrate conditions and develop management and mitigations responses.

Table 4.1 Summary of results from the 2025 Nitrate Monitoring Program.

Component	Summary of Observed Trends and Effects
Water Quality	▪ Nitrate concentrations were greater than the BC WQG FAL across sampling events in 2025 at WR-S4 (collected in SCSP). All stations in the water management infrastructure or in the receiving environment had nitrate concentrations were less than BC WQG FAL.
Periphyton	▪ Periphyton biomass has remained within ranges reported since 2019 across stations. Modestly higher biomass was observed at WQ-14F and EEM-18 in 2025, but these conditions were more likely attributable to habitat conditions and were not associated with nitrate. ▪ Nitrate concentrations have not substantively increased primary productivity (chlorophyll-*a* and AFDW) in Waste Rock Creek and Attichika Creek.
Benthic Invertebrates	▪ Benthic community compositions observed in 2025 were typical of lotic and lentic environments in the region, with lotic stations being primarily comprised of Diptera, Ephemeroptera, Plecoptera, Trichoptera, and Chelicerata, and lentic stations being composed of Diptera, Oligochaeta, and Bivalvia. Relative abundances of these major taxonomic groups varied among waterbodies (e.g., infrastructure, Waste Rock Creek, and Attichika Creek), community composition generally remained similar across stations within each area; thus, differences in habitat characteristics may be associated with some of the observed variances among areas. In general, community composition has remained relatively stable in the receiving environment since 2019. ▪ Aqueous nitrate concentrations have not substantively altered the abundance or taxonomic richness of benthic communities in Waste Rock Creek and Attichika wetlands. ▪ In Attichika Creek, modest but not statistically significant differences were noted downstream of influences at EEM-18, perhaps related to higher primary production. The increased primary production did not appear to be the result of nitrate inputs, as the nitrogen does not appear to be limited primary production in Attichika Creek.

APPENDICES

Appendix A1

Photographs

A1.0 PHOTOGRAPHS OF SAMPLING STATIONS

A1.1 ATTICHIKA CREEK REFERENCE STATION (EEM-13)

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.2 ATTICHIKA CREEK UPSTREAM BACKGROUND STATION (EEM-17)

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.3 ATTICHIKA CREEK NEAR-FIELD EXPOSURE STATION (ATT-IDZ)

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.4 ATTICHIKA CREEK FAR-FIELD EXPOSURE STATION (EEM-18)

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.5 LENTIC REFERENCE STATION (LREF-1)

A. Upstream view

B. Downstream view

C. Across view

D. Riparian area and substrate

A1.6 WASTE ROCK CREEK NEAR-FIELD BEAVER POND (WRC-BP)

A. Upstream view

B. Riparian view

C. Across view

D. Aquatic substrate

A1.7 WASTE ROCK CREEK NEAR-FIELD LOTIC STATION WQ-14F

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.8 WASTE ROCK CREEK NEAR-FIELD LOTIC STATION WQ-14DS

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.9 WASTE ROCK CREEK MID-FIELD LOTIC STATION WRC-5

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.10 ATTICHIKA WETLANDS LENTIC STATION ATWL-1A

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.11 ATTICHIKA WETLANDS LENTIC STATION ATWL-1B

A. East and upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

A1.12 ATTICHIKA WETLANDS LENTIC STATION ATWL-3

A. Upstream view

B. Downstream view

C. Across view

D. Aquatic substrate

Appendix A2

Water Quality

Table A2.1 2025 Kemess Water Quality Data – (ATT-IDZ).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.0900
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.907	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATT-IDZ	2025-05-29 08:50:00	VA25B2871-001	7.74	76.7	76.1	23.90	7.22	7.39	27.7	-	0.54	-	30.8	33.8	13.2	0.0778	1.1900
ATT-IDZ	2025-06-05 16:15:00	VA25B3469-001	4.71	131.0	1.5	1.18	7.62	7.47	32.3	-	1.28	-	45.1	47.4	29.2	0.0365	0.0990
ATT-IDZ	2025-06-09 14:30:00	CG2507746-001	3.58	98.3	1.5	1.96	7.48	7.04	27.4	0.025	0.83	0.060	34.6	36.4	21.0	0.0290	0.1040
ATT-IDZ	2025-06-18 11:45:00	VA25B5014-012	3.13	119.0	1.5	0.61	7.63	7.06	29.9	0.025	1.00	0.070	41.9	40.1	25.3	0.0233	0.0713
ATT-IDZ	2025-06-23 14:25:00	VA25B5731-002	3.41	98.9	4.4	2.66	7.66	7.35	27.6	0.025	0.70	0.048	37.9	37.1	19.0	0.0258	0.1560
ATT-IDZ	2025-06-23 18:00:00	VA25B5731-005	1.38	1090.0	1.5	1.09	8.27	7.35	118.0	0.125	20.90	0.760	308.0	295.0	390.0	0.0024	0.0537
ATT-IDZ	2025-07-02 16:20:00	VA25B6446-002	3.37	119.0	1.5	1.22	7.42	7.70	31.7	0.025	1.10	0.077	42.3	43.3	25.8	0.0197	0.0659
ATT-IDZ	2025-07-10 07:30:00	VA25B7001-002	3.74	128.0	3.6	1.09	7.73	7.21	31.5	-	1.18	-	43.1	41.6	27.0	0.0231	0.0655
ATT-IDZ	2025-07-15 12:50:00	VA25B7596-002	2.96	148.0	1.5	0.83	7.48	7.51	35.6	-	1.48	-	48.1	49.1	32.2	0.0166	0.0583
ATT-IDZ	2025-07-24 08:05:00	VA25B8469-002	3.50	150.0	1.5	0.63	7.78	7.41	35.9	-	1.51	-	52.7	51.2	32.8	0.0186	0.0645
ATT-IDZ	2025-07-27 16:40:00	VA25B8820-002	3.36	159.0	1.5	0.54	7.82	7.59	37.6	-	1.54	-	51.0	52.1	34.8	0.0181	0.0392
ATT-IDZ	2025-08-05 07:30:00	VA25B9560-002	2.63	184.0	1.5	0.44	7.82	7.49	42.4	-	2.00	-	63.1	60.5	41.7	0.0106	0.0346
ATT-IDZ	2025-08-14 08:30:00	VA25C0473-017	2.76	174.0	1.5	0.54	7.80	7.73	42.0	0.025	1.95	0.122	61.1	60.9	40.6	0.0099	0.0298
ATT-IDZ	2025-08-18 09:10:00	VA25C0836-002	2.56	185.0	1.5	0.55	7.79	7.41	43.6	-	2.04	-	62.8	60.9	41.3	0.0110	0.0327
ATT-IDZ	2025-08-25 14:30:00	VA25C1847-002	2.26	191.0	1.5	0.48	7.90	7.94	44.5	-	2.07	-	66.6	69.1	42.0	0.0089	0.0232
ATT-IDZ	2025-09-04 09:45:00	VA25C3443-002	2.04	206.0	1.5	0.43	7.72	7.45	49.8	-	2.34	-	67.2	72.5	45.3	0.0046	0.0166
ATT-IDZ	2025-09-09 07:30:00	VA25C3579-002	1.97	217.0	4.8	0.39	7.83	6.91	51.1	-	2.73	-	77.6	76.2	51.6	0.0048	0.0455
ATT-IDZ	2025-09-14 16:40:00	VA25C4183-002	2.92	184.0	1.5	0.96	7.81	7.65	47.2	-	2.28	-	66.7	67.7	43.5	0.0079	0.0263

Notes:

878	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
1	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
6	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
4	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.1 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0000890	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0001750	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location / DateTime / COC Code															
ATT-IDZ 2025-05-29 08:50:00 VA25B2871-001	0.00005	0.00005	0.00031	0.00085	0.0108	0.0231	0.00001	0.00004	0.000025	0.000025	0.005	0.005	0.0000077	0.00002570	10.6
ATT-IDZ 2025-06-05 16:15:00 VA25B3469-001	0.00015	0.00018	0.00040	0.00047	0.0138	0.0142	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000840	15.6
ATT-IDZ 2025-06-09 14:30:00 CG2507746-001	0.00011	0.00012	0.00039	0.00045	0.0113	0.0119	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000071	0.00000810	12.0
ATT-IDZ 2025-06-18 11:45:00 VA25B5014-012	0.00013	0.00016	0.00038	0.00047	0.0122	0.0133	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000500	14.7
ATT-IDZ 2025-06-23 14:25:00 VA25B5731-002	0.00005	0.00005	0.00038	0.00050	0.0109	0.0117	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000075	0.00000980	13.4
ATT-IDZ 2025-06-23 18:00:00 VA25B5731-005	0.00270	0.00278	0.00306	0.00313	0.0577	0.0560	0.00001	0.00001	0.000025	0.000025	0.024	0.025	0.0000350	0.00003000	112.0
ATT-IDZ 2025-07-02 16:20:00 VA25B6446-002	0.00014	0.00014	0.00040	0.00042	0.0124	0.0154	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000500	14.9
ATT-IDZ 2025-07-10 07:30:00 VA25B7001-002	0.00014	0.00017	0.00037	0.00042	0.0124	0.0133	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000250	15.1
ATT-IDZ 2025-07-15 12:50:00 VA25B7596-002	0.00016	0.00017	0.00041	0.00049	0.0134	0.0147	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000057	0.00000500	16.9
ATT-IDZ 2025-07-24 08:05:00 VA25B8469-002	0.00018	0.00020	0.00042	0.00043	0.0147	0.0153	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000102	0.00001350	18.4
ATT-IDZ 2025-07-27 16:40:00 VA25B8820-002	0.00018	0.00019	0.00045	0.00046	0.0138	0.0142	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000500	17.7
ATT-IDZ 2025-08-05 07:30:00 VA25B9560-002	0.00022	0.00022	0.00048	0.00057	0.0178	0.0181	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000625	22.1
ATT-IDZ 2025-08-14 08:30:00 VA25C0473-017	0.00019	0.00019	0.00047	0.00048	0.0170	0.0170	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000750	21.4
ATT-IDZ 2025-08-18 09:10:00 VA25C0836-002	0.00020	0.00021	0.00046	0.00054	0.0166	0.0163	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000500	22.0
ATT-IDZ 2025-08-25 14:30:00 VA25C1847-002	0.00024	0.00031	0.00053	0.00058	0.0179	0.0185	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000075	0.00000750	23.4
ATT-IDZ 2025-09-04 09:45:00 VA25C3443-002	0.00016	0.00018	0.00046	0.00057	0.0193	0.0201	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000750	23.4
ATT-IDZ 2025-09-09 07:30:00 VA25C3579-002	0.00018	0.00018	0.00048	0.00051	0.0205	0.0192	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000083	0.00000980	27.1
ATT-IDZ 2025-09-14 16:40:00 VA25C4183-002	0.00014	0.00015	0.00042	0.00047	0.0174	0.0207	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000069	0.00000500	23.4

Notes:

878	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
1	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
6	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
4	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.1 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.00020	-	-	-	-	0.002743	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00020	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code														
ATT-IDZ	2025-05-29 08:50:00	VA25B2871-001	11.3	0.00025	0.00158	0.00005	0.00069	0.00126	0.00396	0.100	1.450	0.000025	0.000316	0.0005	0.0005	1.06	1.36
ATT-IDZ	2025-06-05 16:15:00	VA25B3469-001	16.5	0.00025	0.00025	0.00005	0.00005	0.00108	0.00132	0.065	0.145	0.000025	0.000025	0.0005	0.0011	1.50	1.51
ATT-IDZ	2025-06-09 14:30:00	CG2507746-001	12.7	0.00025	0.00025	0.00005	0.00005	0.00088	0.00108	0.053	0.151	0.000025	0.000025	0.0005	0.0005	1.14	1.15
ATT-IDZ	2025-06-18 11:45:00	VA25B5014-012	13.9	0.00025	0.00025	0.00005	0.00005	0.00082	0.00099	0.035	0.092	0.000025	0.000025	0.0005	0.0005	1.27	1.31
ATT-IDZ	2025-06-23 14:25:00	VA25B5731-002	13.0	0.00025	0.00025	0.00005	0.00005	0.00084	0.00114	0.035	0.176	0.000025	0.000025	0.0005	0.0005	1.07	1.12
ATT-IDZ	2025-06-23 18:00:00	VA25B5731-005	107.0	0.00025	0.00025	0.00005	0.00005	0.00261	0.00378	0.005	0.041	0.000025	0.000025	0.0096	0.0100	6.89	6.81
ATT-IDZ	2025-07-02 16:20:00	VA25B6446-002	15.3	0.00025	0.00025	0.00005	0.00005	0.00083	0.00139	0.034	0.093	0.000025	0.000025	0.0005	0.0005	1.24	1.24
ATT-IDZ	2025-07-10 07:30:00	VA25B7001-002	14.3	0.00025	0.00025	0.00005	0.00005	0.00083	0.00109	0.047	0.098	0.000025	0.000025	0.0005	0.0005	1.32	1.43
ATT-IDZ	2025-07-15 12:50:00	VA25B7596-002	17.2	0.00025	0.00025	0.00005	0.00005	0.00082	0.00103	0.043	0.091	0.000025	0.000025	0.0005	0.0005	1.43	1.49
ATT-IDZ	2025-07-24 08:05:00	VA25B8469-002	17.8	0.00025	0.00025	0.00005	0.00005	0.00098	0.00146	0.054	0.115	0.000025	0.000052	0.0005	0.0005	1.64	1.64
ATT-IDZ	2025-07-27 16:40:00	VA25B8820-002	18.2	0.00025	0.00025	0.00005	0.00005	0.00090	0.00099	0.051	0.081	0.000025	0.000025	0.0005	0.0005	1.64	1.62
ATT-IDZ	2025-08-05 07:30:00	VA25B9560-002	21.0	0.00025	0.00025	0.00005	0.00005	0.00068	0.00098	0.053	0.089	0.000025	0.000025	0.0005	0.0005	1.93	1.96
ATT-IDZ	2025-08-14 08:30:00	VA25C0473-017	21.3	0.00025	0.00025	0.00005	0.00005	0.00078	0.00087	0.051	0.088	0.000025	0.000025	0.0005	0.0005	1.87	1.88
ATT-IDZ	2025-08-18 09:10:00	VA25C0836-002	21.2	0.00025	0.00025	0.00005	0.00005	0.00081	0.00096	0.050	0.082	0.000025	0.000025	0.0005	0.0005	1.90	1.94
ATT-IDZ	2025-08-25 14:30:00	VA25C1847-002	24.4	0.00025	0.00025	0.00005	0.00005	0.00090	0.00112	0.042	0.070	0.000025	0.000025	0.0005	0.0005	1.98	1.98
ATT-IDZ	2025-09-04 09:45:00	VA25C3443-002	25.4	0.00025	0.00025	0.00005	0.00005	0.00061	0.00075	0.033	0.065	0.000025	0.000025	0.0005	0.0005	2.12	2.20
ATT-IDZ	2025-09-09 07:30:00	VA25C3579-002	26.9	0.00025	0.00025	0.00005	0.00005	0.00067	0.00075	0.044	0.093	0.000025	0.000025	0.0005	0.0011	2.40	2.20
ATT-IDZ	2025-09-14 16:40:00	VA25C4183-002	23.5	0.00025	0.00025	0.00005	0.00005	0.00066	0.00088	0.046	0.104	0.000025	0.000025	0.0005	0.0005	2.01	2.20

Notes:

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19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
1	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
6	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
4	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.1 (Cont'd.)

			Metals														
			Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
	Detection Limit		0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.74052	-	0.0012500	-	7.60000	0.00100	-	-	-	-	-	-	0.002000	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.87942	-	-	-	46.00000	0.01590	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATT-IDZ	2025-05-29 08:50:00	VA25B2871-001	0.00881	0.08070	0.0000025	0.0000074	0.00384	0.00405	0.00025	0.00127	0.025	0.025	0.357	0.465	0.000396	0.000434	2.62
ATT-IDZ	2025-06-05 16:15:00	VA25B3469-001	0.00455	0.00939	0.0000025	0.0000025	0.00864	0.00960	0.00025	0.00025	0.025	0.025	0.377	0.374	0.001220	0.001210	3.11
ATT-IDZ	2025-06-09 14:30:00	CG2507746-001	0.00285	0.00873	0.0000025	0.0000025	0.00581	0.00583	0.00025	0.00025	0.025	0.025	0.269	0.284	0.001030	0.000835	2.88
ATT-IDZ	2025-06-18 11:45:00	VA25B5014-012	0.00253	0.00648	0.0000025	0.0000025	0.00721	0.00738	0.00025	0.00025	0.025	0.025	0.312	0.302	0.000971	0.000880	2.82
ATT-IDZ	2025-06-23 14:25:00	VA25B5731-002	0.00249	0.00913	0.0000025	0.0000025	0.00560	0.00560	0.00025	0.00025	0.025	0.025	0.260	0.252	0.000563	0.000566	2.59
ATT-IDZ	2025-06-23 18:00:00	VA25B5731-005	0.00552	0.00773	0.0000025	0.0000025	0.13400	0.13600	0.00059	0.00065	0.025	0.060	2.430	2.250	0.017200	0.019200	2.37
ATT-IDZ	2025-07-02 16:20:00	VA25B6446-002	0.00278	0.00552	0.0000025	0.0000025	0.00831	0.00836	0.00025	0.00025	0.025	0.025	0.280	0.269	0.000949	0.000984	2.64
ATT-IDZ	2025-07-10 07:30:00	VA25B7001-002	0.00278	0.00535	0.0000025	0.0000025	0.00877	0.00924	0.00025	0.00025	0.025	0.025	0.280	0.293	0.001040	0.000956	2.90
ATT-IDZ	2025-07-15 12:50:00	VA25B7596-002	0.00384	0.00636	0.0000025	0.0000025	0.01060	0.01050	0.00025	0.00025	0.025	0.025	0.317	0.343	0.000934	0.001100	2.98
ATT-IDZ	2025-07-24 08:05:00	VA25B8469-002	0.00359	0.00594	0.0000025	0.0000025	0.01140	0.01190	0.00025	0.00025	0.025	0.025	0.360	0.343	0.001160	0.001100	3.15
ATT-IDZ	2025-07-27 16:40:00	VA25B8820-002	0.00371	0.00514	0.0000025	0.0000025	0.01150	0.01160	0.00025	0.00025	0.025	0.025	0.327	0.334	0.001220	0.001250	3.16
ATT-IDZ	2025-08-05 07:30:00	VA25B9560-002	0.00439	0.00587	0.0000025	0.0000025	0.01520	0.01540	0.00067	0.00025	0.025	0.025	0.458	0.466	0.001330	0.001220	3.38
ATT-IDZ	2025-08-14 08:30:00	VA25C0473-017	0.00384	0.00527	0.0000025	0.0000025	0.01500	0.01490	0.00025	0.00025	0.025	0.025	0.424	0.420	0.000980	0.001170	3.22
ATT-IDZ	2025-08-18 09:10:00	VA25C0836-002	0.00363	0.00495	0.0000025	0.0000025	0.01410	0.01430	0.00025	0.00025	0.025	0.025	0.428	0.383	0.001140	0.001210	3.36
ATT-IDZ	2025-08-25 14:30:00	VA25C1847-002	0.00362	0.00484	0.0000025	0.0000025	0.01690	0.01650	0.00025	0.00025	0.025	0.025	0.467	0.423	0.001220	0.001370	3.56
ATT-IDZ	2025-09-04 09:45:00	VA25C3443-002	0.00445	0.00542	0.0000025	0.0000025	0.01710	0.01850	0.00025	0.00025	0.025	0.025	0.485	0.474	0.000508	0.000494	3.26
ATT-IDZ	2025-09-09 07:30:00	VA25C3579-002	0.00416	0.00662	0.0000025	0.0000025	0.02010	0.01920	0.00025	0.00025	0.025	0.025	0.558	0.517	0.000597	0.000546	3.44
ATT-IDZ	2025-09-14 16:40:00	VA25C4183-002	0.00322	0.00932	0.0000025	0.0000025	0.01530	0.01440	0.00025	0.00025	0.025	0.025	0.491	0.877	0.000475	0.000546	3.55

Notes:

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19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
1	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
6	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
4	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.1 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
	Detection Limit		0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATT-IDZ	2025-05-29 08:50:00	VA25B2871-001	4.52	0.000005	0.000011	3.67	3.55	0.0593	0.0625	3.99	4.27	0.000005	0.000005	0.00005	0.00005	0.00108	0.03340
ATT-IDZ	2025-06-05 16:15:00	VA25B3469-001	3.18	0.000005	0.000005	8.60	8.36	0.1050	0.1110	9.25	10.10	0.000005	0.000005	0.00005	0.00005	0.00034	0.00260
ATT-IDZ	2025-06-09 14:30:00	CG2507746-001	3.08	0.000005	0.000005	5.30	5.47	0.0772	0.0754	7.34	7.53	0.000005	0.000005	0.00005	0.00005	0.00037	0.00227
ATT-IDZ	2025-06-18 11:45:00	VA25B5014-012	3.10	0.000005	0.000005	6.71	6.77	0.0864	0.0909	8.20	8.67	0.000005	0.000005	0.00005	0.00005	0.00015	0.00183
ATT-IDZ	2025-06-23 14:25:00	VA25B5731-002	2.97	0.000005	0.000005	4.66	4.60	0.0699	0.0687	5.76	5.85	0.000005	0.000005	0.00005	0.00005	0.00035	0.00473
ATT-IDZ	2025-06-23 18:00:00	VA25B5731-005	2.62	0.000005	0.000005	124.00	121.00	1.3300	1.3200	130.00	139.00	0.000005	0.000005	0.00005	0.00005	0.00015	0.00060
ATT-IDZ	2025-07-02 16:20:00	VA25B6446-002	2.89	0.000005	0.000005	6.49	6.42	0.0899	0.0904	7.28	7.74	0.000005	0.000005	0.00005	0.00005	0.00015	0.00472
ATT-IDZ	2025-07-10 07:30:00	VA25B7001-002	3.19	0.000005	0.000005	6.74	7.31	0.0986	0.0987	8.71	8.85	0.000005	0.000005	0.00005	0.00005	0.00015	0.00184
ATT-IDZ	2025-07-15 12:50:00	VA25B7596-002	3.30	0.000005	0.000005	8.16	8.64	0.1070	0.1060	10.50	11.10	0.000005	0.000005	0.00005	0.00005	0.00015	0.00169
ATT-IDZ	2025-07-24 08:05:00	VA25B8469-002	3.34	0.000005	0.000005	9.14	8.87	0.1170	0.1230	10.80	11.50	0.000005	0.000005	0.00005	0.00005	0.00015	0.00195
ATT-IDZ	2025-07-27 16:40:00	VA25B8820-002	3.22	0.000005	0.000005	9.26	9.59	0.1230	0.1210	11.50	12.40	0.000005	0.000005	0.00005	0.00005	0.00015	0.00069
ATT-IDZ	2025-08-05 07:30:00	VA25B9560-002	3.46	0.000005	0.000005	12.40	12.10	0.1560	0.1530	14.70	15.40	0.000005	0.000005	0.00005	0.00005	0.00015	0.00095
ATT-IDZ	2025-08-14 08:30:00	VA25C0473-017	3.49	0.000005	0.000005	11.10	10.80	0.1510	0.1420	13.70	14.50	0.000005	0.000005	0.00005	0.00005	0.00015	0.00099
ATT-IDZ	2025-08-18 09:10:00	VA25C0836-002	3.42	0.000005	0.000005	11.40	11.40	0.1430	0.1440	13.70	14.60	0.000005	0.000005	0.00005	0.00005	0.00015	0.00066
ATT-IDZ	2025-08-25 14:30:00	VA25C1847-002	3.52	0.000005	0.000005	11.90	12.70	0.1670	0.1660	15.40	16.00	0.000005	0.000005	0.00005	0.00005	0.00015	0.00076
ATT-IDZ	2025-09-04 09:45:00	VA25C3443-002	3.55	0.000005	0.000005	12.60	12.60	0.1670	0.1640	14.20	16.80	0.000005	0.000005	0.00005	0.00005	0.00015	0.00037
ATT-IDZ	2025-09-09 07:30:00	VA25C3579-002	3.36	0.000005	0.000005	13.80	13.40	0.1860	0.1740	17.50	17.70	0.000005	0.000005	0.00005	0.00005	0.00015	0.00143
ATT-IDZ	2025-09-14 16:40:00	VA25C4183-002	3.48	0.000005	0.000005	10.30	11.40	0.1560	0.1460	14.80	14.90	0.000005	0.000005	0.00005	0.00005	0.00015	0.00072

Notes:

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19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
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1	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
6	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
4	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.1 (Cont'd.)

			Metals								Nutrients					Selenium Species		
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved	Selenate (Se[VI])-Dissolved	Selenite (Se[IV])-Dissolved	Selenocyanate (SeCN)-Dissolved
	Detection Limit		0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002	0.0001	0.0001	0.0001
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	0.0054	-	-	-	1.1000	3.0000	0.0200	-	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.016500	-	-	0.0220	-	-	-	5.7400	32.8000	0.0600	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**																
ATT-IDZ	2025-05-29 08:50:00	VA25B2871-001	0.000102	0.000151	0.00025	0.00302	0.0005	0.0036	0.0001	0.00022	0.0025	0.0143	0.0005	0.0005	0.0083	-	-	-
ATT-IDZ	2025-06-05 16:15:00	VA25B3469-001	0.000214	0.000224	0.00025	0.00058	0.0005	0.0015	0.0001	0.00010	0.1820	0.0668	0.0005	0.0005	0.0038	-	-	-
ATT-IDZ	2025-06-09 14:30:00	CG2507746-001	0.000153	0.000158	0.00025	0.00055	0.0005	0.0015	0.0001	0.00010	0.0025	0.0492	0.0027	0.0005	0.0036	-	-	-
ATT-IDZ	2025-06-18 11:45:00	VA25B5014-012	0.000184	0.000185	0.00025	0.00052	0.0005	0.0015	0.0001	0.00010	0.0025	0.0483	0.0005	0.0005	0.0022	0.00082	0.00005	0.00005
ATT-IDZ	2025-06-23 14:25:00	VA25B5731-002	0.000135	0.000141	0.00025	0.00070	0.0005	0.0015	0.0001	0.00010	0.0025	0.0285	0.0005	0.0005	0.0032	-	-	-
ATT-IDZ	2025-06-23 18:00:00	VA25B5731-005	0.003350	0.003290	0.00160	0.00180	0.0034	0.0034	0.0001	0.00010	0.0158	1.1200	0.0080	0.0316	0.0367	-	-	-
ATT-IDZ	2025-07-02 16:20:00	VA25B6446-002	0.000180	0.000188	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0398	0.0005	0.0005	0.0026	-	-	-
ATT-IDZ	2025-07-10 07:30:00	VA25B7001-002	0.000191	0.000199	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0371	0.0005	0.0005	0.0026	-	-	-
ATT-IDZ	2025-07-15 12:50:00	VA25B7596-002	0.000242	0.000247	0.00025	0.00054	0.0005	0.0015	0.0001	0.00010	0.0184	0.0388	0.0005	0.0005	0.0028	-	-	-
ATT-IDZ	2025-07-24 08:05:00	VA25B8469-002	0.000245	0.000248	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0091	0.0444	0.0005	0.0005	0.0026	-	-	-
ATT-IDZ	2025-07-27 16:40:00	VA25B8820-002	0.000251	0.000265	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0451	0.0005	0.0005	0.0010	-	-	-
ATT-IDZ	2025-08-05 07:30:00	VA25B9560-002	0.000337	0.000337	0.00025	0.00054	0.0005	0.0015	0.0001	0.00010	0.0058	0.0474	0.0016	0.0005	0.0021	-	-	-
ATT-IDZ	2025-08-14 08:30:00	VA25C0473-017	0.000300	0.000321	0.00025	0.00055	0.0005	0.0015	0.0001	0.00010	0.0025	0.0373	0.0005	0.0005	0.0010	0.00093	0.00005	0.00005
ATT-IDZ	2025-08-18 09:10:00	VA25C0836-002	0.000328	0.000338	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0494	0.0005	0.0005	0.0010	-	-	-
ATT-IDZ	2025-08-25 14:30:00	VA25C1847-002	0.000340	0.000339	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0446	0.0016	0.0005	0.0010	-	-	-
ATT-IDZ	2025-09-04 09:45:00	VA25C3443-002	0.000367	0.000369	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0051	0.0152	0.0005	0.0005	0.0010	-	-	-
ATT-IDZ	2025-09-09 07:30:00	VA25C3579-002	0.000417	0.000409	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0193	0.0005	0.0005	0.0010	-	-	-
ATT-IDZ	2025-09-14 16:40:00	VA25C4183-002	0.000318	0.000331	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0131	0.0118	0.0005	0.0005	0.0026	-	-	-

Notes:

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1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.1 (Cont'd.)

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4		Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3		0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0		-	0.0900
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.907	-	-	-		-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
ATT-IDZ	2025-09-22 14:05:00	VA25C5316-002	3.43	180.0	1.5	0.84	7.85	7.77	43.9	0.025	1.93	0.110	62.5	57.9	39.4		0.0161	0.0559
ATT-IDZ	2025-09-30 07:45:00	VA25C6065-002	2.69	200.0	1.5	0.37	7.76	7.16	44.4	-	2.21	-	65.1	70.9	46.3		0.0094	0.0241
ATT-IDZ	2025-10-07 08:45:00	VA25C6691-002	2.76	177.0	1.5	0.81	7.76	7.69	42.0	0.025	1.90	0.108	60.5	62.4	40.0		0.0105	0.0402
ATT-IDZ	2025-10-13 16:50:00	VA25C7521-002	2.39	201.0	1.5	0.36	7.87	7.69	44.1	-	2.38	-	69.8	66.8	49.3		0.0087	0.0278
ATT-IDZ	2025-10-20 16:50:00	VA25C8150-002	2.49	207.0	1.5	0.45	7.84	7.58	44.3	-	2.51	-	69.3	72.1	52.2		0.0088	0.0169
ATT-IDZ	2025-10-27 10:20:00	VA25C8815-002	2.67	201.0	6.6	1.86	7.76	6.91	44.5	0.025	2.35	0.134	65.3	65.4	47.9		0.0111	0.2630
		Minimum	1.38	76.7	-	0.36	7.22	6.91	27.4	-	0.54	0.048	30.8	33.8	13.2		0.0024	0.0166
		Mean	3.10	201.0	-	1.84	7.73	7.44	42.5	-	2.53	0.165	66.4	66.3	51.3		0.0172	0.1085
		Median	2.84	178.5	-	0.72	7.77	7.46	42.2	-	1.94	0.108	61.8	60.7	40.3		0.0111	0.0496
		Maximum	7.74	1090.0	-	23.90	8.27	7.94	118.0	-	20.90	0.760	308.0	295.0	390.0		0.0778	1.1900
		25th percentile	2.54	130.2	-	0.47	7.65	7.31	32.1	-	1.25	0.070	44.6	46.4	28.6		0.0089	0.0293
		75th percentile	3.42	200.2	-	1.11	7.82	7.66	44.4	-	2.30	0.122	66.6	68.1	45.5		0.0205	0.0673
		95th percentile	4.56	215.5	-	2.55	7.90	7.76	50.9	-	2.70	0.510	76.4	75.6	52.1		0.0354	0.2469
		Standard deviation	1.20	193.4	-	4.73	0.20	0.28	17.6	-	3.96	0.225	53.0	50.4	72.9		0.0154	0.2365
		Standard error	0.25	39.5	-	0.97	0.04	0.06	3.6	-	0.81	0.075	10.8	10.3	14.9		0.0031	0.0483
		Sample size	24	24	24	24	24	24	24	9	24	9	24	24	24		24	24
		Number of non-detects	0	0	19	0	0	0	0	9	0	0	0	0	0		0	0
		Percentage of non-detects	0.0	0.0	79.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0

Notes:

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19	**value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average**
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6	**value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)**
1	**value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)**
0	**value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)**
4	**value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis**
1	**General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.**

Table A2.1 (Cont'd.)

			Metals														
			Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
		Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0000890	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0001750	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ATT-IDZ	2025-09-22 14:05:00	VA25C5316-002	0.00021	0.00021	0.00055	0.00048	0.0163	0.0169	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000690	21.9
ATT-IDZ	2025-09-30 07:45:00	VA25C6065-002	0.00024	0.00027	0.00042	0.00050	0.0171	0.0187	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000076	0.00000500	22.7
ATT-IDZ	2025-10-07 08:45:00	VA25C6691-002	0.00017	0.00019	0.00041	0.00041	0.0153	0.0159	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000055	0.00000500	21.1
ATT-IDZ	2025-10-13 16:50:00	VA25C7521-002	0.00024	0.00027	0.00042	0.00046	0.0171	0.0167	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000095	0.00000980	24.5
ATT-IDZ	2025-10-20 16:50:00	VA25C8150-002	0.00025	0.00027	0.00044	0.00047	0.0169	0.0171	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000750	24.2
ATT-IDZ	2025-10-27 10:20:00	VA25C8815-002	0.00024	0.00024	0.00040	0.00050	0.0158	0.0172	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000750	22.8
		Minimum	0.00005	0.00005	0.00031	0.00041	0.0108	0.0117	-	-	-	-	-	-	-	-	10.6
		Mean	0.00028	0.00030	0.00054	0.00061	0.0170	0.0181	-	-	-	-	-	-	-	-	23.4
		Median	0.00018	0.00019	0.00042	0.00048	0.0161	0.0168	-	-	-	-	-	-	-	-	21.6
		Maximum	0.00270	0.00278	0.00306	0.00313	0.0577	0.0560	-	-	-	-	-	-	-	-	112.0
		25th percentile	0.00014	0.00017	0.00040	0.00046	0.0132	0.0146	-	-	-	-	-	-	-	-	15.5
		75th percentile	0.00022	0.00022	0.00046	0.00052	0.0172	0.0185	-	-	-	-	-	-	-	-	23.4
		95th percentile	0.00025	0.00030	0.00055	0.00081	0.0203	0.0227	-	-	-	-	-	-	-	-	26.7
		Standard deviation	0.00052	0.00053	0.00054	0.00054	0.0091	0.0085	-	-	-	-	-	-	-	-	19.4
		Standard error	0.00011	0.00011	0.00011	0.00011	0.0019	0.0017	-	-	-	-	-	-	-	-	4.0
		Sample size	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
		Number of non-detects	2	2	0	0	0	0	24	23	24	24	23	23	14	16	0
		Percentage of non-detects	8.3	8.3	0.0	0.0	0.0	0.0	100.0	95.8	100.0	100.0	95.8	95.8	58.3	66.7	0.0

Notes:

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19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
1	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
6	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
4	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.1 (Cont'd.)

			Metals													
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
	Detection Limit		0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	0.00039	-	0.00020	-	-	-	-	0.002743	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	0.00020	-	0.350	1.000	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ATT-IDZ	2025-09-22 14:05:00	VA25C5316-002	20.0	0.00025	0.00025	0.00005	0.00005	0.00092	0.00114	0.053	0.104	0.000025	0.000025	0.0005	0.0005	1.89	1.94
ATT-IDZ	2025-09-30 07:45:00	VA25C6065-002	24.9	0.00025	0.00025	0.00005	0.00005	**0.00079**	0.00097	0.053	0.077	0.000025	0.000025	0.0005	0.0012	2.05	2.12
ATT-IDZ	2025-10-07 08:45:00	VA25C6691-002	21.6	0.00025	0.00025	0.00005	0.00005	0.00075	0.00090	0.045	0.092	0.000025	0.000025	0.0005	0.0005	1.89	2.06
ATT-IDZ	2025-10-13 16:50:00	VA25C7521-002	23.4	0.00025	0.00025	0.00005	0.00005	**0.00071**	0.00087	0.043	0.073	0.000025	0.000025	0.0011	0.0011	2.10	2.04
ATT-IDZ	2025-10-20 16:50:00	VA25C8150-002	25.3	0.00025	0.00025	0.00005	0.00005	**0.00074**	0.00077	0.046	0.066	0.000025	0.000025	0.0011	0.0012	2.15	2.17
ATT-IDZ	2025-10-27 10:20:00	VA25C8815-002	22.7	0.00025	0.00025	0.00005	0.00017	**0.00075**	0.00141	0.053	0.344	0.000025	0.000064	0.0005	0.0013	2.04	2.11
	Minimum		11.3	-	-	-	-	0.00061	0.00075	0.005	0.041	-	-	-	-	1.06	1.12
	Mean		23.3	-	-	-	-	0.00090	0.00128	0.047	0.162	-	-	-	-	1.94	1.98
	Median		21.1	-	-	-	-	0.00082	0.00101	0.046	0.092	-	-	-	-	1.89	1.94
	Maximum		107.0	-	-	-	-	0.00261	0.00396	0.100	1.450	-	-	-	-	6.89	6.81
	25th percentile		16.2	-	-	-	-	0.00075	0.00090	0.043	0.080	-	-	-	-	1.40	1.47
	75th percentile		23.7	-	-	-	-	0.00090	0.00118	0.053	0.107	-	-	-	-	2.04	2.11
	95th percentile		26.7	-	-	-	-	0.00123	0.00343	0.063	0.319	-	-	-	-	2.36	2.20
	Standard deviation		18.4	-	-	-	-	0.00039	0.00082	0.016	0.281	-	-	-	-	1.12	1.09
	Standard error		3.8	-	-	-	-	0.00008	0.00017	0.003	0.057	-	-	-	-	0.23	0.22
	Sample size		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
	Number of non-detects		0	24	23	24	22	0	0	1	0	24	21	21	17	0	0
	Percentage of non-detects		0.0	100.0	95.8	100.0	91.7	0.0	0.0	4.2	0.0	100.0	87.5	87.5	70.8	0.0	0.0

Notes:

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19	**value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average**
1	**value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum**
1	**value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average**
6	**value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)**
1	**value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)**
0	**value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)**
4	**value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis**
1	**General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.**

Table A2.1 (Cont'd.)

			Metals														
			Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
		Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.74052	-	0.0012500	-	7.60000	0.00100	-	-	-	-	-	-	0.002000	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.87942	-	-	-	46.00000	0.01590	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
ATT-IDZ	2025-09-22 14:05:00	VA25C5316-002	0.00331	0.00602	0.0000025	0.0000025	0.01340	0.01470	0.00025	0.00025	0.025	0.025	0.448	0.461	0.001260	0.001120	3.37
ATT-IDZ	2025-09-30 07:45:00	VA25C6065-002	0.00374	0.00551	0.0000025	0.0000025	0.01500	**0.01710**	0.00025	0.00025	0.025	0.025	0.446	0.453	0.001700	0.001620	3.75
ATT-IDZ	2025-10-07 08:45:00	VA25C6691-002	0.00432	0.00696	0.0000025	0.0000025	0.01340	0.01460	0.00025	0.00025	0.025	0.025	0.408	0.416	0.000912	0.000869	3.28
ATT-IDZ	2025-10-13 16:50:00	VA25C7521-002	0.00521	0.00661	0.0000025	0.0000025	0.01620	**0.01750**	0.00025	0.00025	0.025	0.025	0.441	0.455	0.001220	0.001310	3.34
ATT-IDZ	2025-10-20 16:50:00	VA25C8150-002	0.00571	0.00648	0.0000025	0.0000025	0.01620	**0.01710**	0.00025	0.00025	0.025	0.025	0.493	0.464	0.001330	0.001610	3.33
ATT-IDZ	2025-10-27 10:20:00	VA25C8815-002	0.00567	0.01910	0.0000025	0.0000025	0.01510	0.01520	0.00025	0.00025	0.025	0.025	0.424	0.438	0.001230	0.001320	3.32
		Minimum	0.00249	0.00484	-	-	0.00384	0.00405	-	-	-	-	0.260	0.252	0.000396	0.000434	2.37
		Mean	0.00411	0.01014	-	-	0.01744	0.01789	-	-	-	-	0.481	0.490	0.001691	0.001788	3.14
		Median	0.00379	0.00642	-	-	0.01375	0.01450	-	-	-	-	0.424	0.422	0.001090	0.001110	3.24
		Maximum	0.00881	0.08070	-	-	0.13400	0.13600	-	-	-	-	2.430	2.250	0.017200	0.019200	3.75
		25th percentile	0.00329	0.00549	-	-	0.00874	0.00951	-	-	-	-	0.324	0.341	0.000929	0.000860	2.89
		75th percentile	0.00448	0.00798	-	-	0.01552	0.01665	-	-	-	-	0.460	0.464	0.001223	0.001265	3.36
		95th percentile	0.00570	0.01764	-	-	0.01965	0.01909	-	-	-	-	0.548	0.823	0.001644	0.001618	3.56
		Standard deviation	0.00138	0.01531	-	-	0.02518	0.02553	-	-	-	-	0.423	0.395	0.003319	0.003724	0.35
		Standard error	0.00028	0.00312	-	-	0.00514	0.00521	-	-	-	-	0.086	0.081	0.000677	0.000760	0.07
		Sample size	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
		Number of non-detects	0	0	24	23	0	0	22	22	24	23	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	100.0	95.8	0.0	0.0	91.7	91.7	100.0	95.8	0.0	0.0	0.0	0.0	0.0

Notes:

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19	**value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average**
1	**value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum**
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6	**value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)**
1	**value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)**
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1	**General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.**

Table A2.1 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
		Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ATT-IDZ	2025-09-22 14:05:00	VA25C5316-002	3.28	0.000005	0.000005	10.40	11.00	0.1420	0.1450	13.20	14.30	0.000005	0.000005	0.00005	0.00005	0.00050	0.00108
ATT-IDZ	2025-09-30 07:45:00	VA25C6065-002	3.50	0.000005	0.000005	12.20	12.90	0.1610	0.1770	16.40	16.90	0.000005	0.000005	0.00005	0.00005	0.00015	0.00045
ATT-IDZ	2025-10-07 08:45:00	VA25C6691-002	3.52	0.000005	0.000005	9.74	10.40	0.1470	0.1480	13.40	13.50	0.000005	0.000005	0.00005	0.00005	0.00015	0.00129
ATT-IDZ	2025-10-13 16:50:00	VA25C7521-002	3.16	0.000005	0.000005	12.50	12.30	0.1710	0.1810	16.40	17.80	0.000005	0.000005	0.00005	0.00005	0.00015	0.00085
ATT-IDZ	2025-10-20 16:50:00	VA25C8150-002	3.43	0.000005	0.000005	13.60	13.60	0.1670	0.1750	17.30	18.20	0.000005	0.000005	0.00005	0.00005	0.00015	0.00037
ATT-IDZ	2025-10-27 10:20:00	VA25C8815-002	3.83	0.000005	0.000005	12.40	13.40	0.1610	0.1630	15.90	17.60	0.000005	0.000005	0.00005	0.00005	0.00015	0.01100
		Minimum	2.62	-	-	3.67	3.55	0.0593	0.0625	3.99	4.27	-	-	-	-	-	0.00037
		Mean	3.35	-	-	14.46	14.52	0.1808	0.1811	17.08	18.13	-	-	-	-	-	0.00322
		Median	3.35	-	-	10.35	10.90	0.1450	0.1445	13.55	14.40	-	-	-	-	-	0.00118
		Maximum	4.52	-	-	124.00	121.00	1.3300	1.3200	130.00	139.00	-	-	-	-	-	0.03340
		25th percentile	3.18	-	-	7.80	8.10	0.1034	0.1042	9.12	9.79	-	-	-	-	-	0.00071
		75th percentile	3.49	-	-	12.40	12.62	0.1625	0.1645	15.53	16.83	-	-	-	-	-	0.00203
		95th percentile	3.79	-	-	13.77	13.57	0.1837	0.1804	17.47	18.14	-	-	-	-	-	0.01006
		Standard deviation	0.36	-	-	23.51	22.87	0.2475	0.2453	24.35	26.07	-	-	-	-	-	0.00682
		Standard error	0.07	-	-	4.80	4.67	0.0505	0.0501	4.97	5.32	-	-	-	-	-	0.00139
		Sample size	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
		Number of non-detects	0	24	23	0	0	0	0	0	0	24	24	24	24	19	1
		Percentage of non-detects	0.0	100.0	95.8	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	79.2	4.2

Notes:

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Table A2.1 (Cont'd.)

			Metals								Nutrients					Selenium Species		
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved	Selenate (Se[VI])-Dissolved	Selenite (Se[IV])-Dissolved	Selenocyanate (SeCN)-Dissolved
Detection Limit			0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002	0.0001	0.0001	0.0001
Units			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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average			-	-	-	-	0.0054	-	-	-	1.1000	3.0000	0.0200	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum			-	0.016500	-	-	0.0220	-	-	-	5.7400	32.8000	0.0600	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average			-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ATT-IDZ	2025-09-22 14:05:00	VA25C5316-002	0.000318	0.000316	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0098	0.0516	0.0011	0.0005	0.0028	-	-	-
ATT-IDZ	2025-09-30 07:45:00	VA25C6065-002	0.000351	0.000398	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0076	0.0773	0.0005	0.0005	0.0010	-	-	-
ATT-IDZ	2025-10-07 08:45:00	VA25C6691-002	0.000308	0.000332	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0411	0.0013	0.0005	0.0061	-	-	-
ATT-IDZ	2025-10-13 16:50:00	VA25C7521-002	0.000373	0.000395	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0660	0.0005	0.0005	0.0024	-	-	-
ATT-IDZ	2025-10-20 16:50:00	VA25C8150-002	0.000395	0.000401	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0649	0.0005	0.0005	0.0010	-	-	-
ATT-IDZ	2025-10-27 10:20:00	VA25C8815-002	0.000378	0.000372	0.00025	0.00097	0.0005	0.0015	0.0001	0.00010	0.0025	0.0611	0.0005	0.0005	0.0024	-	-	-
Minimum			0.000102	0.000141	-	-	-	-	-	-	-	0.0118	-	-	0.0010	0.00082	-	-
Mean			0.000407	0.000415	-	-	-	-	-	-	-	0.0883	-	-	0.0040	0.00088	-	-
Median			0.000313	0.000326	-	-	-	-	-	-	-	0.0448	-	-	0.0025	0.00088	-	-
Maximum			0.003350	0.003290	-	-	-	-	-	-	-	1.1200	-	-	0.0367	0.00093	-	-
25th percentile			0.000208	0.000218	-	-	-	-	-	-	-	0.0372	-	-	0.0010	0.00085	-	-
75th percentile			0.000355	0.000370	-	-	-	-	-	-	-	0.0540	-	-	0.0029	0.00090	-	-
95th percentile			0.000414	0.000408	-	-	-	-	-	-	-	0.0757	-	-	0.0080	0.00092	-	-
Standard deviation			0.000633	0.000618	-	-	-	-	-	-	-	0.2204	-	-	0.0072	0.00008	-	-
Standard error			0.000129	0.000126	-	-	-	-	-	-	-	0.0450	-	-	0.0015	0.00006	-	-
Sample size			24	24	24	24	24	24	24	24	24	24	24	24	24	2	2	2
Number of non-detects			0	0	23	14	23	22	24	23	15	0	18	23	8	0	2	2
Percentage of non-detects			0.0	0.0	95.8	58.3	95.8	91.7	100.0	95.8	62.5	0.0	75.0	95.8	33.3	0.0	100.0	100.0

Notes:

878	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
1	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
6	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
4	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 2025 Kemess Water Quality Data – (ATWL-1A).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.0696
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.142	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-1A	2025-01-13 11:05:00	VA25A0822-001	2.86	202	1.5	1.86	7.81	7.57	68.7	-	1.00	-	75.0	72.0	26.9	0.00280	0.0101
ATWL-1A	2025-02-11 11:10:00	VA25A3370-001	1.85	179	1.5	1.51	7.74	7.61	61.5	0.025	1.10	0.041	71.7	70.2	20.0	0.00230	0.0140
ATWL-1A	2025-03-11 09:00:00	VA25A5732-001	1.32	171	1.5	2.67	7.45	6.95	60.6	-	1.41	-	70.1	74.0	27.3	0.00242	0.0199
ATWL-1A	2025-04-23 09:00:00	VA25A9398-001	3.36	245	1.5	1.94	8.12	7.12	89.7	-	0.96	-	90.1	90.7	36.5	0.00680	0.0381
ATWL-1A	2025-05-20 13:30:00	VA25B2045-001	5.56	147	1.5	1.11	7.79	7.47	53.0	-	0.25	-	55.4	54.9	18.7	0.01520	0.0335
ATWL-1A	2025-06-18 10:10:00	VA25B5014-004	4.72	156	1.5	0.59	7.73	7.23	63.1	0.025	0.25	0.065	62.0	62.2	19.5	0.00750	0.0214
ATWL-1A	2025-07-16 10:55:00	VA25B7664-001	5.02	164	1.5	1.30	7.65	6.65	69.7	-	0.25	-	69.6	66.3	17.3	0.01100	0.0468
ATWL-1A	2025-08-11 11:45:00	VA25C0242-001	4.76	190	3.4	1.62	7.83	7.08	85.3	-	0.25	-	73.3	75.7	16.1	0.00780	0.0246
ATWL-1A	2025-09-10 14:05:00	VA25C3871-001	4.60	200	1.5	3.31	7.89	7.17	84.3	-	0.70	-	82.9	81.8	18.6	0.00650	0.0193
ATWL-1A	2025-09-15 08:15:00	VA25C4426-002	-	220	1.5	0.80	7.94	7.17	88.3	0.025	0.25	0.082	84.8	83.8	24.8	0.00650	0.0380
ATWL-1A	2025-10-14 11:25:00	VA25C7726-006	2.68	178	1.5	0.88	7.90	6.70	68.8	-	0.77	-	70.6	70.5	21.3	0.00350	0.0147
ATWL-1A	2025-11-19 10:05:00	VA25D1477-001	3.28	215	5.2	0.96	7.92	6.98	81.3	0.025	0.25	0.079	87.6	87.8	30.1	0.00610	0.0372
ATWL-1A	2025-12-16 13:45:00	VA25D4009-001	2.29	176	3.2	2.24	7.68	7.27	64.9	0.025	1.06	0.054	71.1	72.4	24.1	0.00340	0.0237

Notes:

499	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

			Metals													
			Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
	Detection Limit		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001370	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0003200	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-1A	2025-01-13 11:05:00	VA25A0822-001	0.00005	0.00005	0.00019	0.00024	0.0250	0.0243	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	25.5
ATWL-1A	2025-02-11 11:10:00	VA25A3370-001	0.00005	0.00005	0.00020	0.00030	0.0231	0.0243	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000061	0.00000840	24.4
ATWL-1A	2025-03-11 09:00:00	VA25A5732-001	0.00005	0.00005	0.00022	0.00031	0.0242	0.0232	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000784	23.6
ATWL-1A	2025-04-23 09:00:00	VA25A9398-001	0.00005	0.00005	0.00021	0.00023	0.0306	0.0304	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000510	30.3
ATWL-1A	2025-05-20 13:30:00	VA25B2045-001	0.00005	0.00005	0.00014	0.00018	0.0210	0.0208	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000058	0.00000250	19.2
ATWL-1A	2025-06-18 10:10:00	VA25B5014-004	0.00005	0.00005	0.00021	0.00025	0.0231	0.0245	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	21.5
ATWL-1A	2025-07-16 10:55:00	VA25B7664-001	0.00005	0.00005	0.00031	0.00037	0.0262	0.0274	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000075	0.00000790	24.2
ATWL-1A	2025-08-11 11:45:00	VA25C0242-001	0.00005	0.00005	0.00039	0.00040	0.0290	0.0284	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000770	25.4
ATWL-1A	2025-09-10 14:05:00	VA25C3871-001	0.00005	0.00005	0.00047	0.00058	0.0278	0.0273	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000069	0.00000720	28.7
ATWL-1A	2025-09-15 08:15:00	VA25C4426-002	0.00005	0.00005	0.00022	0.00026	0.0319	0.0314	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	29.2
ATWL-1A	2025-10-14 11:25:00	VA25C7726-006	0.00005	0.00005	0.00016	0.00021	0.0233	0.0238	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000059	0.00000540	24.3
ATWL-1A	2025-11-19 10:05:00	VA25D1477-001	0.00005	0.00005	0.00015	0.00019	0.0282	0.0290	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	30.2
ATWL-1A	2025-12-16 13:45:00	VA25D4009-001	0.00005	0.00005	0.00014	0.00017	0.0233	0.0243	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000053	0.00000790	24.4

Notes:

499	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

			Metals														
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
	Detection Limit		0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	0.00040	-	0.000200	-	-	-	-	0.002213	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	0.000200	-	0.350	1.000	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-1A	2025-01-13 11:05:00	VA25A0822-001	24.4	0.00025	0.00025	0.00005	0.000050	0.000460	0.000540	0.182	0.381	0.000025	0.000025	0.0005	0.0005	2.74	2.68
ATWL-1A	2025-02-11 11:10:00	VA25A3370-001	24.0	0.00025	0.00025	0.00005	0.000130	0.000350	0.000620	0.193	0.633	0.000025	0.000025	0.0005	0.0005	2.61	2.50
ATWL-1A	2025-03-11 09:00:00	VA25A5732-001	25.4	0.00025	0.00025	0.00005	0.000122	0.000291	0.000574	0.261	0.619	0.000025	0.000025	0.0005	0.0005	2.72	2.58
ATWL-1A	2025-04-23 09:00:00	VA25A9398-001	30.8	0.00025	0.00025	0.00005	0.000050	0.000730	0.000850	0.239	0.408	0.000025	0.000025	0.0005	0.0005	3.50	3.35
ATWL-1A	2025-05-20 13:30:00	VA25B2045-001	18.9	0.00025	0.00025	0.00005	0.000050	0.001470	0.001670	0.043	0.077	0.000025	0.000025	0.0005	0.0005	1.80	1.88
ATWL-1A	2025-06-18 10:10:00	VA25B5014-004	21.5	0.00025	0.00025	0.00005	0.000050	0.001210	0.001340	0.096	0.135	0.000025	0.000025	0.0005	0.0005	2.02	2.07
ATWL-1A	2025-07-16 10:55:00	VA25B7664-001	22.8	0.00025	0.00025	0.00012	0.000130	0.001220	0.001280	0.206	0.343	0.000025	0.000025	0.0005	0.0005	2.24	2.28
ATWL-1A	2025-08-11 11:45:00	VA25C0242-001	26.1	0.00025	0.00025	0.00013	0.000050	0.000870	0.001130	0.336	0.330	0.000025	0.000025	0.0005	0.0005	2.40	2.55
ATWL-1A	2025-09-10 14:05:00	VA25C3871-001	28.1	0.00025	0.00025	0.00014	0.000150	0.000570	0.000750	0.469	0.858	0.000025	0.000025	0.0005	0.0005	2.74	2.83
ATWL-1A	2025-09-15 08:15:00	VA25C4426-002	28.8	0.00025	0.00025	0.00005	0.000050	0.001050	0.001330	0.092	0.180	0.000025	0.000025	0.0005	0.0005	2.90	2.90
ATWL-1A	2025-10-14 11:25:00	VA25C7726-006	24.1	0.00025	0.00025	0.00005	0.000050	0.000660	0.000790	0.131	0.232	0.000025	0.000025	0.0005	0.0005	2.42	2.50
ATWL-1A	2025-11-19 10:05:00	VA25D1477-001	30.5	0.00025	0.00025	0.00005	0.000050	0.000770	0.000960	0.139	0.258	0.000025	0.000025	0.0005	0.0005	2.97	2.82
ATWL-1A	2025-12-16 13:45:00	VA25D4009-001	24.5	0.00025	0.00025	0.00005	0.000130	0.000380	0.000600	0.235	0.596	0.000025	0.000025	0.0005	0.0005	2.46	2.72

Notes:

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12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.84876	-	0.0012500	-	7.60000	0.00140	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.15051	-	-	-	46.00000	0.02520	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
ATWL-1A 2025-01-13 11:05:00 VA25A0822-001	0.03330	0.03180	0.0000025	0.0000025	0.00238	0.00249	0.00025	0.00025	0.025	0.025	0.464	0.446	0.001410	0.001380	4.01
ATWL-1A 2025-02-11 11:10:00 VA25A3370-001	0.05260	0.05970	0.0000025	0.0000025	0.00254	0.00259	0.00025	0.00025	0.025	0.025	0.508	0.538	0.000538	0.000689	3.93
ATWL-1A 2025-03-11 09:00:00 VA25A5732-001	0.05890	0.06130	0.0000025	0.0000025	0.00194	0.00206	0.00025	0.00025	0.025	0.025	0.474	0.462	0.000828	0.000859	3.93
ATWL-1A 2025-04-23 09:00:00 VA25A9398-001	0.02980	0.03140	0.0000025	0.0000025	0.00195	0.00210	0.00025	0.00025	0.025	0.025	0.616	0.590	0.003420	0.003270	3.90
ATWL-1A 2025-05-20 13:30:00 VA25B2045-001	0.00415	0.00623	0.0000025	0.0000025	0.00159	0.00150	0.00025	0.00025	0.025	0.025	0.323	0.318	0.001060	0.001210	3.09
ATWL-1A 2025-06-18 10:10:00 VA25B5014-004	0.01360	0.01550	0.0000025	0.0000025	0.00182	0.00177	0.00025	0.00025	0.025	0.025	0.343	0.335	0.001340	0.001280	3.33
ATWL-1A 2025-07-16 10:55:00 VA25B7664-001	0.03430	0.03190	0.0000025	0.0000025	0.00203	0.00200	0.00025	0.00025	0.025	0.025	0.283	0.318	0.001130	0.001100	3.76
ATWL-1A 2025-08-11 11:45:00 VA25C0242-001	0.04480	0.02770	0.0000025	0.0000025	0.00188	0.00196	0.00025	0.00025	0.025	0.025	0.372	0.269	0.001110	0.001360	3.84
ATWL-1A 2025-09-10 14:05:00 VA25C3871-001	0.06680	0.06680	0.0000025	0.0000025	0.00194	0.00206	0.00025	0.00025	0.025	0.025	0.413	0.385	0.000771	0.000810	3.85
ATWL-1A 2025-09-15 08:15:00 VA25C4426-002	0.01580	0.01770	0.0000025	0.0000025	0.00171	0.00180	0.00025	0.00025	0.025	0.025	0.329	0.315	0.002790	0.002700	3.91
ATWL-1A 2025-10-14 11:25:00 VA25C7726-006	0.01960	0.02080	0.0000025	0.0000025	0.00226	0.00221	0.00025	0.00025	0.025	0.025	0.389	0.402	0.001190	0.001010	3.62
ATWL-1A 2025-11-19 10:05:00 VA25D1477-001	0.02560	0.02580	0.0000025	0.0000025	0.00130	0.00123	0.00025	0.00025	0.025	0.025	0.305	0.312	0.002250	0.002400	4.14
ATWL-1A 2025-12-16 13:45:00 VA25D4009-001	0.05680	0.06440	0.0000025	0.0000025	0.00163	0.00166	0.00025	0.00025	0.025	0.025	0.502	0.516	0.000671	0.000713	4.40

Notes:

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12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

	Metals															
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code														
ATWL-1A	2025-01-13 11:05:00	VA25A0822-001	4.06	0.000005	0.000005	10.30	9.35	0.1060	0.1070	9.62	9.42	0.000005	0.000005	0.00005	0.00005	0.00015	0.000150
ATWL-1A	2025-02-11 11:10:00	VA25A3370-001	4.24	0.000005	0.000005	7.38	7.64	0.0923	0.0915	8.51	8.06	0.000005	0.000005	0.00005	0.00005	0.00015	0.000440
ATWL-1A	2025-03-11 09:00:00	VA25A5732-001	4.19	0.000005	0.000005	8.31	7.74	0.0952	0.0928	8.60	9.31	0.000005	0.000005	0.00005	0.00005	0.00015	0.000613
ATWL-1A	2025-04-23 09:00:00	VA25A9398-001	4.04	0.000005	0.000005	14.80	15.80	0.1410	0.1530	12.40	12.20	0.000005	0.000005	0.00005	0.00005	0.00032	0.001110
ATWL-1A	2025-05-20 13:30:00	VA25B2045-001	3.32	0.000005	0.000005	7.51	8.47	0.0949	0.0943	6.00	6.90	0.000005	0.000005	0.00005	0.00005	0.00036	0.000760
ATWL-1A	2025-06-18 10:10:00	VA25B5014-004	3.50	0.000005	0.000005	8.42	8.09	0.1010	0.1030	7.10	6.70	0.000005	0.000005	0.00005	0.00005	0.00015	0.000450
ATWL-1A	2025-07-16 10:55:00	VA25B7664-001	3.83	0.000012	0.000005	7.68	7.77	0.1080	0.1100	5.54	5.72	0.000005	0.000005	0.00005	0.00005	0.00015	0.001340
ATWL-1A	2025-08-11 11:45:00	VA25C0242-001	3.77	0.000005	0.000005	9.31	9.04	0.1230	0.1220	4.86	5.12	0.000005	0.000005	0.00005	0.00005	0.00015	0.000850
ATWL-1A	2025-09-10 14:05:00	VA25C3871-001	3.96	0.000005	0.000005	10.00	9.51	0.1200	0.1270	6.30	6.49	0.000005	0.000005	0.00005	0.00005	0.00015	0.000690
ATWL-1A	2025-09-15 08:15:00	VA25C4426-002	4.06	0.000005	0.000005	12.40	12.50	0.1380	0.1480	8.05	8.46	0.000005	0.000005	0.00005	0.00005	0.00015	0.001090
ATWL-1A	2025-10-14 11:25:00	VA25C7726-006	4.13	0.000005	0.000005	8.74	8.42	0.0996	0.0994	6.76	7.24	0.000005	0.000005	0.00005	0.00005	0.00015	0.000480
ATWL-1A	2025-11-19 10:05:00	VA25D1477-001	4.27	0.000005	0.000005	12.00	12.50	0.1460	0.1370	9.69	10.00	0.000005	0.000005	0.00005	0.00005	0.00015	0.000800
ATWL-1A	2025-12-16 13:45:00	VA25D4009-001	4.82	0.000005	0.000005	7.57	9.00	0.0984	0.1010	7.45	8.99	0.000005	0.000005	0.00005	0.00005	0.00015	0.000680

Notes:

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1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
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1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0075	-	-	-	1.8100	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0312	-	-	-	10.7000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
ATWL-1A	2025-01-13 11:05:00	VA25A0822-001	0.0000490	0.000049	0.00025	0.00025	0.0014	0.0015	0.0001	0.0001	0.0121	0.1030	0.0005	0.0005	0.0061
ATWL-1A	2025-02-11 11:10:00	VA25A3370-001	0.0000370	0.000037	0.00025	0.00025	0.0011	0.0015	0.0001	0.0001	0.0099	0.0273	0.0005	0.0005	0.0058
ATWL-1A	2025-03-11 09:00:00	VA25A5732-001	0.0000407	0.000045	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0160	0.0378	0.0005	0.0005	0.0071
ATWL-1A	2025-04-23 09:00:00	VA25A9398-001	0.0001060	0.000108	0.00025	0.00025	0.0011	0.0015	0.0001	0.0001	0.0102	0.1700	0.0005	0.0005	0.0066
ATWL-1A	2025-05-20 13:30:00	VA25B2045-001	0.0000300	0.000032	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0070	0.0215	0.0005	0.0013	0.0058
ATWL-1A	2025-06-18 10:10:00	VA25B5014-004	0.0000320	0.000032	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0072	0.0025	0.0005	0.0005	0.0044
ATWL-1A	2025-07-16 10:55:00	VA25B7664-001	0.0000330	0.000033	0.00025	0.00025	0.0015	0.0015	0.0001	0.0001	0.0073	0.0054	0.0005	0.0005	0.0123
ATWL-1A	2025-08-11 11:45:00	VA25C0242-001	0.0000410	0.000044	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0078	0.0261	0.0005	0.0014	0.0078
ATWL-1A	2025-09-10 14:05:00	VA25C3871-001	0.0000400	0.000040	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0071	0.0025	0.0005	0.0013	0.0095
ATWL-1A	2025-09-15 08:15:00	VA25C4426-002	0.0000490	0.000052	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0051	0.0909	0.0005	0.0005	0.0073
ATWL-1A	2025-10-14 11:25:00	VA25C7726-006	0.0000370	0.000037	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0088	0.0455	0.0005	0.0005	0.0035
ATWL-1A	2025-11-19 10:05:00	VA25D1477-001	0.0000510	0.000054	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0080	0.1470	0.0005	0.0005	0.0028
ATWL-1A	2025-12-16 13:45:00	VA25D4009-001	0.0000340	0.000034	0.00025	0.00025	0.0011	0.0015	0.0001	0.0001	0.0025	0.0345	0.0005	0.0005	0.0057

Notes:

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1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
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Table A2.2 (Cont'd.)

	Carbon Content	Conventional Variables					Major Ions							Metals	
	Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.0696
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.142	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	1.32	147	-	0.59	7.45	6.65	53.0	-	0.25	0.041	55.4	54.9	16.1	0.00230	0.0101
Mean	3.52	188	-	1.60	7.80	7.15	72.2	-	0.65	0.064	74.2	74.0	23.2	0.00629	0.0263
Median	3.32	179	-	1.51	7.81	7.17	68.8	-	0.70	0.065	71.7	72.4	21.3	0.00650	0.0237
Maximum	5.56	245	-	3.31	8.12	7.61	89.7	-	1.41	0.082	90.1	90.7	36.5	0.01520	0.0468
25th percentile	2.58	171	-	0.96	7.73	6.98	63.1	-	0.25	0.054	70.1	70.2	18.7	0.00340	0.0193
75th percentile	4.73	202	-	1.94	7.90	7.27	84.3	-	1.00	0.079	82.9	81.8	26.9	0.00750	0.0372
95th percentile	5.26	230	-	2.93	8.01	7.59	88.9	-	1.22	0.081	88.6	89.0	32.7	0.01268	0.0416
Standard deviation	1.38	28	-	0.80	0.16	0.29	12.1	-	0.42	0.017	10.0	10.1	5.9	0.00371	0.0113
Standard error	0.40	8	-	0.22	0.05	0.08	3.3	-	0.12	0.008	2.8	2.8	1.6	0.00103	0.0031
Sample size	12	13	13	13	13	13	13	5	13	5	13	13	13	13	13
Number of non-detects	0	0	10	0	0	0	0	5	6	0	0	0	0	0	0
Percentage of non-detects	0.0	0.0	76.9	0.0	0.0	0.0	0.0	100.0	46.1	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

499	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001370	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0003200	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	0.00014	0.00017	0.0210	0.0208	-	-	-	-	-	-	-	0.00000250	19.2
Mean	-	-	0.00023	0.00028	0.0259	0.0261	-	-	-	-	-	-	-	0.00000538	25.5
Median	-	-	0.00021	0.00025	0.0250	0.0245	-	-	-	-	-	-	-	0.00000540	24.4
Maximum	-	-	0.00047	0.00058	0.0319	0.0314	-	-	-	-	-	-	-	0.00000840	30.3
25th percentile	-	-	0.00016	0.00021	0.0233	0.0243	-	-	-	-	-	-	-	0.00000250	24.2
75th percentile	-	-	0.00022	0.00031	0.0282	0.0284	-	-	-	-	-	-	-	0.00000784	28.7
95th percentile	-	-	0.00042	0.00047	0.0311	0.0308	-	-	-	-	-	-	-	0.00000810	30.2
Standard deviation	-	-	0.00010	0.00011	0.0033	0.0031	-	-	-	-	-	-	-	0.00000255	3.3
Standard error	-	-	0.00003	0.00003	0.0009	0.0009	-	-	-	-	-	-	-	0.00000071	0.9
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	13	13	0	0	0	0	13	13	13	13	13	13	7	5	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	53.9	38.5	0.0

Notes:

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12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00040	-	0.000200	-	-	-	-	0.002213	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.000200	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	18.9	-	-	-	-	0.000291	0.000540	0.043	0.077	-	-	-	-	1.80	1.88
Mean	25.4	-	-	-	-	0.000772	0.000956	0.202	0.388	-	-	-	-	2.58	2.59
Median	24.5	-	-	-	-	0.000730	0.000850	0.193	0.343	-	-	-	-	2.61	2.58
Maximum	30.8	-	-	-	-	0.001470	0.001670	0.469	0.858	-	-	-	-	3.50	3.35
25th percentile	24.0	-	-	-	-	0.000460	0.000620	0.131	0.232	-	-	-	-	2.40	2.50
75th percentile	28.1	-	-	-	-	0.001050	0.001280	0.239	0.596	-	-	-	-	2.74	2.82
95th percentile	30.6	-	-	-	-	0.001320	0.001472	0.389	0.723	-	-	-	-	3.18	3.08
Standard deviation	3.5	-	-	-	-	0.000374	0.000362	0.113	0.229	-	-	-	-	0.44	0.38
Standard error	1.0	-	-	-	-	0.000104	0.000100	0.031	0.063	-	-	-	-	0.12	0.10
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	0	13	13	10	8	0	0	0	0	13	13	13	13	0	0
Percentage of non-detects	0.0	100.0	100.0	76.9	61.5	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

499	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.84876	-	0.0012500	-	7.60000	0.00140	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.15051	-	-	-	46.00000	0.02520	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Minimum	0.00415	0.00623	-	-	0.00130	0.00123	-	-	-	-	0.283	0.269	0.000538	0.000689	3.09
Mean	0.03508	0.03546	-	-	0.00192	0.00196	-	-	-	-	0.409	0.400	0.001424	0.001445	3.82
Median	0.03330	0.03140	-	-	0.00194	0.00200	-	-	-	-	0.389	0.385	0.001130	0.001210	3.90
Maximum	0.06680	0.06680	-	-	0.00254	0.00259	-	-	-	-	0.616	0.590	0.003420	0.003270	4.40
25th percentile	0.01960	0.02080	-	-	0.00171	0.00177	-	-	-	-	0.329	0.318	0.000828	0.000859	3.76
75th percentile	0.05260	0.05970	-	-	0.00203	0.00210	-	-	-	-	0.474	0.462	0.001410	0.001380	3.93
95th percentile	0.06206	0.06536	-	-	0.00244	0.00253	-	-	-	-	0.551	0.559	0.003042	0.002928	4.24
Standard deviation	0.01957	0.02052	-	-	0.00034	0.00037	-	-	-	-	0.098	0.102	0.000868	0.000820	0.33
Standard error	0.00543	0.00569	-	-	0.00009	0.00010	-	-	-	-	0.027	0.028	0.000241	0.000227	0.09
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	0	0	13	13	0	0	13	13	13	13	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

499	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.32	-	-	7.38	7.64	0.0923	0.0915	4.86	5.12	-	-	-	-	-	0.000150
Mean	4.01	-	-	9.57	9.68	0.1126	0.1143	7.76	8.05	-	-	-	-	-	0.000727
Median	4.06	-	-	8.74	9.00	0.1060	0.1070	7.45	8.06	-	-	-	-	-	0.000690
Maximum	4.82	-	-	14.80	15.80	0.1460	0.1530	12.40	12.20	-	-	-	-	-	0.001340
25th percentile	3.83	-	-	7.68	8.09	0.0984	0.0994	6.30	6.70	-	-	-	-	-	0.000480
75th percentile	4.19	-	-	10.30	9.51	0.1230	0.1270	8.60	9.31	-	-	-	-	-	0.000850
95th percentile	4.49	-	-	13.36	13.82	0.1430	0.1500	10.77	10.88	-	-	-	-	-	0.001202
Standard deviation	0.37	-	-	2.28	2.44	0.0190	0.0211	2.04	1.95	-	-	-	-	-	0.000322
Standard error	0.10	-	-	0.63	0.68	0.0053	0.0059	0.57	0.54	-	-	-	-	-	0.000089
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	0	12	13	0	0	0	0	0	0	13	13	13	13	11	1
Percentage of non-detects	0.0	92.3	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	84.6	7.7

Notes:

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12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.2 (Cont'd.)

	Metals								Nutrients				
	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0075	-	-	-	1.8100	3.0000	0.0200	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0312	-	-	-	10.7000	32.8000	0.0600	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.0000300	0.000032	-	-	-	-	-	-	0.0025	0.0025	-	-	0.0028
Mean	0.0000446	0.000046	-	-	-	-	-	-	0.0084	0.0549	-	-	0.0065
Median	0.0000400	0.000040	-	-	-	-	-	-	0.0078	0.0345	-	-	0.0061
Maximum	0.0001060	0.000108	-	-	-	-	-	-	0.0160	0.1700	-	-	0.0123
25th percentile	0.0000340	0.000034	-	-	-	-	-	-	0.0071	0.0215	-	-	0.0057
75th percentile	0.0000490	0.000049	-	-	-	-	-	-	0.0099	0.0909	-	-	0.0073
95th percentile	0.0000730	0.000076	-	-	-	-	-	-	0.0137	0.1562	-	-	0.0106
Standard deviation	0.0000196	0.000020	-	-	-	-	-	-	0.0033	0.0554	-	-	0.0025
Standard error	0.0000054	0.000006	-	-	-	-	-	-	0.0009	0.0154	-	-	0.0007
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	0	0	13	13	8	13	13	13	1	2	13	10	0
Percentage of non-detects	0.0	0.0	100.0	100.0	61.5	100.0	100.0	100.0	7.7	15.4	100.0	76.9	0.0

Notes:

499	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
12	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 2025 Kemess Water Quality Data – (ATWL-1B).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.05079
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.131	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-1B	2025-01-13 10:30:00	VA25A0822-002	2.28	197	1.5	2.37	7.84	7.86	67.6	-	1.17	-	72.0	70.6	26.4	0.00820	0.00760
ATWL-1B	2025-02-11 10:30:00	VA25A3370-002	1.45	185	1.5	2.10	7.80	7.09	63.8	0.025	1.55	0.054	77.5	70.8	26.2	0.00540	0.00690
ATWL-1B	2025-03-11 10:45:00	VA25A5732-002	1.18	175	1.5	2.47	7.55	6.62	60.1	-	1.44	-	73.4	72.8	26.6	0.00207	0.00839
ATWL-1B	2025-04-22 08:30:00	VA25A9398-002	2.93	228	1.5	1.88	8.13	6.56	82.8	-	1.19	-	84.5	82.4	33.6	0.00460	0.02840
ATWL-1B	2025-05-20 13:50:00	VA25B2045-002	5.39	152	6.1	1.75	7.73	7.17	53.7	-	0.25	-	57.0	54.9	19.8	0.01240	0.06840
ATWL-1B	2025-06-16 10:41:00	VA25B4662-001	3.68	161	5.2	1.18	7.94	6.64	60.9	0.025	0.65	0.061	60.4	62.7	21.3	0.00540	0.03440
ATWL-1B	2025-07-16 10:35:00	VA25B7664-002	4.55	161	1.5	1.55	7.76	6.88	66.4	-	0.58	-	70.7	66.5	18.5	0.00650	0.06430
ATWL-1B	2025-08-11 11:30:00	VA25C0242-002	4.31	178	5.2	2.52	7.79	7.10	82.4	-	0.62	-	69.7	73.7	16.0	0.00430	0.06100
ATWL-1B	2025-09-10 13:40:00	VA25C3871-002	3.84	189	1.5	2.19	7.99	7.18	77.9	-	0.90	-	74.2	75.1	18.4	0.00340	0.01890
ATWL-1B	2025-09-15 09:05:00	VA25C4426-001	-	188	4.5	1.84	7.67	7.18	77.1	0.025	0.94	0.069	77.1	74.2	20.4	0.00410	0.04480
ATWL-1B	2025-10-16 11:05:00	VA25C7726-007	2.93	182	1.5	1.89	7.85	6.47	70.6	-	1.01	-	72.4	72.6	22.1	0.00420	0.02850
ATWL-1B	2025-11-18 15:25:00	VA25D1477-002	2.62	184	1.5	2.25	7.69	7.27	68.5	0.025	0.90	0.063	75.5	79.0	25.3	0.00480	0.03400
ATWL-1B	2025-12-16 14:15:00	VA25D4009-002	2.36	184	1.5	1.96	7.80	6.53	66.4	0.025	1.01	0.058	71.8	74.1	23.1	0.00420	0.01790

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.005000	-	-	-	-	-	-	-	1.200	0.0001400	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0003300	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code													
ATWL-1B	2025-01-13 10:30:00	VA25A0822-002	0.00005	0.00005	0.000180	0.000230	0.0241	0.0232	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000052	0.00000250	24.3
ATWL-1B	2025-02-11 10:30:00	VA25A3370-002	0.00005	0.00005	0.000170	0.000250	0.0231	0.0236	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000055	0.00000590	26.1
ATWL-1B	2025-03-11 10:45:00	VA25A5732-002	0.00005	0.00005	0.000176	0.000249	0.0222	0.0221	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000569	24.7
ATWL-1B	2025-04-22 08:30:00	VA25A9398-002	0.00005	0.00005	0.000180	0.000240	0.0271	0.0282	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000650	28.4
ATWL-1B	2025-05-20 13:50:00	VA25B2045-002	0.00005	0.00005	0.000160	0.000220	0.0198	0.0202	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000054	0.00000560	19.7
ATWL-1B	2025-06-16 10:41:00	VA25B4662-001	0.00005	0.00005	0.000180	0.000270	0.0208	0.0228	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	20.8
ATWL-1B	2025-07-16 10:35:00	VA25B7664-002	0.00005	0.00005	0.000250	0.000300	0.0257	0.0257	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000053	0.00000250	24.3
ATWL-1B	2025-08-11 11:30:00	VA25C0242-002	0.00005	0.00005	0.000220	0.000310	0.0255	0.0265	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	23.9
ATWL-1B	2025-09-10 13:40:00	VA25C3871-002	0.00005	0.00005	0.000230	0.000300	0.0254	0.0262	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	25.3
ATWL-1B	2025-09-15 09:05:00	VA25C4426-001	0.00005	0.00005	0.000220	0.000340	0.0241	0.0250	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	26.3
ATWL-1B	2025-10-16 11:05:00	VA25C7726-007	0.00005	0.00005	0.000170	0.000210	0.0237	0.0249	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000580	24.9
ATWL-1B	2025-11-18 15:25:00	VA25D1477-002	0.00005	0.00005	0.000150	0.000220	0.0230	0.0254	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000080	0.00000610	25.4
ATWL-1B	2025-12-16 14:15:00	VA25D4009-002	0.00005	0.00005	0.000150	0.000240	0.0220	0.0232	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000079	0.00000790	24.6

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

			Metals														
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
	Detection Limit		0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	0.00040	-	0.00020	-	-	-	-	0.002110	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	0.00020	-	0.350	1.000	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-1B	2025-01-13 10:30:00	VA25A0822-002	23.8	0.00025	0.00025	0.00005	0.00005	0.00046	0.00025	0.193	0.491	0.000025	0.000025	0.0005	0.0005	2.75	2.71
ATWL-1B	2025-02-11 10:30:00	VA25A3370-002	23.9	0.00025	0.00025	0.00005	0.00005	0.00031	0.00025	0.215	0.607	0.000025	0.000025	0.0005	0.0005	3.00	2.71
ATWL-1B	2025-03-11 10:45:00	VA25A5732-002	24.9	0.00025	0.00025	0.00005	0.00005	0.00010	0.00025	0.200	0.577	0.000025	0.000025	0.0005	0.0005	2.84	2.59
ATWL-1B	2025-04-22 08:30:00	VA25A9398-002	27.7	0.00025	0.00025	0.00005	0.00005	0.00056	0.00068	0.240	0.431	0.000025	0.000025	0.0005	0.0005	3.30	3.22
ATWL-1B	2025-05-20 13:50:00	VA25B2045-002	18.8	0.00025	0.00025	0.00005	0.00005	0.00124	0.00145	0.088	0.173	0.000025	0.000025	0.0005	0.0005	1.90	1.93
ATWL-1B	2025-06-16 10:41:00	VA25B4662-001	21.6	0.00025	0.00025	0.00005	0.00005	0.00099	0.00111	0.103	0.199	0.000025	0.000025	0.0005	0.0005	2.05	2.13
ATWL-1B	2025-07-16 10:35:00	VA25B7664-002	22.9	0.00025	0.00025	0.00005	0.00005	0.00098	0.00113	0.211	0.324	0.000025	0.000025	0.0005	0.0005	2.44	2.26
ATWL-1B	2025-08-11 11:30:00	VA25C0242-002	25.3	0.00025	0.00025	0.00005	0.00005	0.00058	0.00079	0.209	0.607	0.000025	0.000025	0.0005	0.0005	2.43	2.55
ATWL-1B	2025-09-10 13:40:00	VA25C3871-002	25.6	0.00025	0.00025	0.00005	0.00005	0.00046	0.00054	0.254	0.519	0.000025	0.000025	0.0005	0.0005	2.69	2.71
ATWL-1B	2025-09-15 09:05:00	VA25C4426-001	25.3	0.00025	0.00025	0.00005	0.00005	0.00058	0.00074	0.248	0.611	0.000025	0.000025	0.0005	0.0005	2.78	2.69
ATWL-1B	2025-10-16 11:05:00	VA25C7726-007	24.8	0.00025	0.00025	0.00005	0.00005	0.00052	0.00069	0.177	0.491	0.000025	0.000025	0.0005	0.0005	2.48	2.59
ATWL-1B	2025-11-18 15:25:00	VA25D1477-002	27.2	0.00025	0.00025	0.00005	0.00005	0.00080	0.00072	0.213	0.522	0.000025	0.000025	0.0005	0.0005	2.94	2.70
ATWL-1B	2025-12-16 14:15:00	VA25D4009-002	25.2	0.00025	0.00025	0.00005	0.00005	0.00053	0.00072	0.172	0.396	0.000025	0.000025	0.0005	0.0005	2.52	2.72

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.8558	-	0.0012500	-	7.60000	0.00140	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.1681	-	-	-	46.00000	0.02500	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
ATWL-1B	2025-01-13 10:30:00	VA25A0822-002	0.03300	0.0313	0.0000025	0.0000025	0.00180	0.00191	0.00025	0.00025	0.025	0.025	0.466	0.466	0.000971	0.000994	4.05
ATWL-1B	2025-02-11 10:30:00	VA25A3370-002	0.04590	0.0474	0.0000025	0.0000025	0.00152	0.00163	0.00025	0.00025	0.025	0.025	0.528	0.543	0.000460	0.000434	4.20
ATWL-1B	2025-03-11 10:45:00	VA25A5732-002	0.04330	0.0438	0.0000025	0.0000025	0.00151	0.00162	0.00025	0.00025	0.025	0.025	0.474	0.450	0.000578	0.000614	3.99
ATWL-1B	2025-04-22 08:30:00	VA25A9398-002	0.02860	0.0310	0.0000025	0.0000025	0.00164	0.00172	0.00025	0.00025	0.025	0.025	0.614	0.591	0.002600	0.002660	3.68
ATWL-1B	2025-05-20 13:50:00	VA25B2045-002	0.00826	0.0105	0.0000025	0.0000025	0.00162	0.00155	0.00025	0.00025	0.025	0.025	0.338	0.336	0.001090	0.001090	3.22
ATWL-1B	2025-06-16 10:41:00	VA25B4662-001	0.01170	0.0132	0.0000025	0.0000025	0.00184	0.00183	0.00025	0.00025	0.025	0.025	0.305	0.320	0.000975	0.001080	3.34
ATWL-1B	2025-07-16 10:35:00	VA25B7664-002	0.02280	0.0233	0.0000025	0.0000025	0.00164	0.00188	0.00025	0.00025	0.025	0.025	0.254	0.272	0.000934	0.000964	3.79
ATWL-1B	2025-08-11 11:30:00	VA25C0242-002	0.01210	0.0194	0.0000025	0.0000025	0.00166	0.00174	0.00025	0.00025	0.025	0.025	0.349	0.306	0.000799	0.000880	3.86
ATWL-1B	2025-09-10 13:40:00	VA25C3871-002	0.03290	0.0367	0.0000025	0.0000025	0.00159	0.00156	0.00025	0.00025	0.025	0.025	0.357	0.329	0.000598	0.000603	3.77
ATWL-1B	2025-09-15 09:05:00	VA25C4426-001	0.01950	0.0270	0.0000025	0.0000025	0.00170	0.00175	0.00025	0.00025	0.025	0.025	0.522	0.483	0.001060	0.001080	4.02
ATWL-1B	2025-10-16 11:05:00	VA25C7726-007	0.02530	0.0295	0.0000025	0.0000025	0.00161	0.00158	0.00025	0.00025	0.025	0.025	0.502	0.510	0.000715	0.000930	3.60
ATWL-1B	2025-11-18 15:25:00	VA25D1477-002	0.03680	0.0432	0.0000025	0.0000025	0.00145	0.00148	0.00025	0.00025	0.025	0.025	0.422	0.426	0.001160	0.001150	4.41
ATWL-1B	2025-12-16 14:15:00	VA25D4009-002	0.03390	0.0378	0.0000025	0.0000025	0.00309	0.00309	0.00025	0.00025	0.025	0.025	0.605	0.594	0.001000	0.000891	4.20

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
	Detection Limit		0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-1B	2025-01-13 10:30:00	VA25A0822-002	4.13	0.000005	0.000005	9.11	8.50	0.1020	0.1030	9.16	8.83	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
ATWL-1B	2025-02-11 10:30:00	VA25A3370-002	4.48	0.000005	0.000005	7.25	7.53	0.0952	0.0974	8.20	8.23	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
ATWL-1B	2025-03-11 10:45:00	VA25A5732-002	4.21	0.000005	0.000005	7.60	7.46	0.0942	0.0911	7.89	8.84	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
ATWL-1B	2025-04-22 08:30:00	VA25A9398-002	3.73	0.000005	0.000005	12.80	13.60	0.1270	0.1350	10.80	11.20	0.000005	0.000005	0.00005	0.00005	0.00015	0.00090
ATWL-1B	2025-05-20 13:50:00	VA25B2045-002	3.28	0.000005	0.000005	7.53	8.19	0.0902	0.0932	6.49	6.80	0.000005	0.000005	0.00005	0.00005	0.00015	0.00268
ATWL-1B	2025-06-16 10:41:00	VA25B4662-001	3.74	0.000005	0.000005	7.22	7.29	0.0996	0.0982	6.56	7.39	0.000005	0.000005	0.00005	0.00005	0.00015	0.00124
ATWL-1B	2025-07-16 10:35:00	VA25B7664-002	3.72	0.000005	0.000005	7.43	7.34	0.1030	0.1070	5.47	6.29	0.000005	0.000005	0.00005	0.00005	0.00015	0.00194
ATWL-1B	2025-08-11 11:30:00	VA25C0242-002	3.89	0.000005	0.000005	8.55	7.98	0.1120	0.1150	5.07	5.30	0.000005	0.000005	0.00005	0.00005	0.00015	0.00251
ATWL-1B	2025-09-10 13:40:00	VA25C3871-002	3.89	0.000005	0.000005	8.87	8.46	0.1130	0.1150	6.66	6.52	0.000005	0.000005	0.00005	0.00005	0.00015	0.00069
ATWL-1B	2025-09-15 09:05:00	VA25C4426-001	4.11	0.000005	0.000005	9.22	8.92	0.1170	0.1190	6.92	6.72	0.000005	0.000005	0.00005	0.00005	0.00015	0.00142
ATWL-1B	2025-10-16 11:05:00	VA25C7726-007	4.36	0.000005	0.000005	8.45	8.20	0.0991	0.1060	6.86	7.65	0.000005	0.000005	0.00005	0.00005	0.00015	0.00085
ATWL-1B	2025-11-18 15:25:00	VA25D1477-002	4.42	0.000005	0.000005	9.13	9.36	0.1030	0.1060	8.11	8.26	0.000005	0.000005	0.00005	0.00005	0.00015	0.00088
ATWL-1B	2025-12-16 14:15:00	VA25D4009-002	4.47	0.000005	0.000005	7.92	9.13	0.0982	0.0993	7.89	9.18	0.000005	0.000005	0.00005	0.00005	0.00015	0.00040

Notes:

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1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0067	-	-	-	1.4800	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.0165000	-	-	0.0315	-	-	-	7.7100	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.0075000	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
ATWL-1B	2025-01-13 10:30:00	VA25A0822-002	0.0000450	0.0000480	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0176	0.0662	0.0005	0.0005	0.0110
ATWL-1B	2025-02-11 10:30:00	VA25A3370-002	0.0000370	0.0000440	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0194	0.0618	0.0005	0.0005	0.0042
ATWL-1B	2025-03-11 10:45:00	VA25A5732-002	0.0000365	0.0000371	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0210	0.0331	0.0005	0.0005	0.0045
ATWL-1B	2025-04-22 08:30:00	VA25A9398-002	0.0000940	0.0000940	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0025	0.1260	0.0005	0.0005	0.0098
ATWL-1B	2025-05-20 13:50:00	VA25B2045-002	0.0000300	0.0000330	0.00025	0.00025	0.0005	0.0015	0.00022	0.0001	0.0090	0.0151	0.0005	0.0005	0.0053
ATWL-1B	2025-06-16 10:41:00	VA25B4662-001	0.0000290	0.0000300	0.00025	0.00062	0.0005	0.0015	0.00010	0.0001	0.0025	0.0025	0.0005	0.0005	0.0025
ATWL-1B	2025-07-16 10:35:00	VA25B7664-002	0.0000330	0.0000360	0.00025	0.00052	0.0005	0.0015	0.00010	0.0001	0.0025	0.0025	0.0005	0.0005	0.0051
ATWL-1B	2025-08-11 11:30:00	VA25C0242-002	0.0000310	0.0000380	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0025	0.0025	0.0005	0.0005	0.0035
ATWL-1B	2025-09-10 13:40:00	VA25C3871-002	0.0000350	0.0000340	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0077	0.0366	0.0005	0.0005	0.0063
ATWL-1B	2025-09-15 09:05:00	VA25C4426-001	0.0000390	0.0000440	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0107	0.0053	0.0005	0.0005	0.0153
ATWL-1B	2025-10-16 11:05:00	VA25C7726-007	0.0000380	0.0000380	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0088	0.0094	0.0005	0.0005	0.0040
ATWL-1B	2025-11-18 15:25:00	VA25D1477-002	0.0000420	0.0000470	0.00025	0.00025	0.0005	0.0015	0.00010	0.0001	0.0093	0.0602	0.0005	0.0005	0.0036
ATWL-1B	2025-12-16 14:15:00	VA25D4009-002	0.0000460	0.0000440	0.00025	0.00025	0.0021	0.0015	0.00010	0.0001	0.0161	0.0551	0.0005	0.0005	0.0071

Notes:

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0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
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3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

	Carbon Content	Conventional Variables					Major Ions							Metals	
	Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.05079
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.131	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	1.18	152	-	1.18	7.55	6.47	53.7	-	0.25	0.054	57.0	54.9	16.0	0.00207	0.00690
Mean	3.13	182	-	2.00	7.81	6.97	69.1	-	0.94	0.061	72.0	71.5	22.9	0.00535	0.03258
Median	2.93	184	-	1.96	7.80	7.09	67.6	-	0.94	0.061	72.4	72.8	22.1	0.00460	0.02850
Maximum	5.39	228	-	2.52	8.13	7.86	82.8	-	1.55	0.069	84.5	82.4	33.6	0.01240	0.06840
25th percentile	2.34	175	-	1.84	7.73	6.62	63.8	-	0.65	0.058	70.7	70.6	19.8	0.00420	0.01790
75th percentile	3.96	188	-	2.25	7.85	7.18	77.1	-	1.17	0.063	75.5	74.2	26.2	0.00540	0.04480
95th percentile	4.93	209	-	2.49	8.05	7.51	82.6	-	1.48	0.068	80.3	80.4	29.4	0.00988	0.06594
Standard deviation	1.27	19	-	0.38	0.15	0.40	8.8	-	0.36	0.006	7.1	7.0	4.7	0.00258	0.02152
Standard error	0.37	5	-	0.11	0.04	0.11	2.5	-	0.10	0.003	2.0	1.9	1.3	0.00072	0.00597
Sample size	12	13	13	13	13	13	13	5	13	5	13	13	13	13	13
Number of non-detects	0	0	9	0	0	0	0	5	1	0	0	0	0	0	0
Percentage of non-detects	0.0	0.0	69.2	0.0	0.0	0.0	0.0	100.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

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Table A2.3 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.005000	-	-	-	-	-	-	-	1.200	0.0001400	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0003300	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	0.000150	0.000210	0.0198	0.0202	-	-	-	-	-	-	-	0.00000250	19.7
Mean	-	-	0.000187	0.000260	0.0236	0.0244	-	-	-	-	-	-	-	0.00000450	24.5
Median	-	-	0.000180	0.000249	0.0237	0.0249	-	-	-	-	-	-	-	0.00000560	24.7
Maximum	-	-	0.000250	0.000340	0.0271	0.0282	-	-	-	-	-	-	-	0.00000790	28.4
25th percentile	-	-	0.000170	0.000230	0.0222	0.0232	-	-	-	-	-	-	-	0.00000250	24.3
75th percentile	-	-	0.000220	0.000300	0.0254	0.0257	-	-	-	-	-	-	-	0.00000590	25.4
95th percentile	-	-	0.000238	0.000322	0.0263	0.0272	-	-	-	-	-	-	-	0.00000706	27.1
Standard deviation	-	-	0.000032	0.000041	0.0021	0.0021	-	-	-	-	-	-	-	0.00000201	2.2
Standard error	-	-	0.000009	0.000011	0.0006	0.0006	-	-	-	-	-	-	-	0.00000056	0.6
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	13	13	0	0	0	0	13	13	13	13	13	13	7	6	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	53.9	46.1	0.0

Notes:

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Table A2.3 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00040	-	0.00020	-	-	-	-	0.002110	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00020	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	18.8	-	-	-	-	0.00010	0.00025	0.088	0.173	-	-	-	-	1.90	1.93
Mean	24.4	-	-	-	-	0.00062	0.00072	0.194	0.458	-	-	-	-	2.62	2.58
Median	24.9	-	-	-	-	0.00056	0.00072	0.209	0.491	-	-	-	-	2.69	2.69
Maximum	27.7	-	-	-	-	0.00124	0.00145	0.254	0.611	-	-	-	-	3.30	3.22
25th percentile	23.8	-	-	-	-	0.00046	0.00054	0.177	0.396	-	-	-	-	2.44	2.55
75th percentile	25.3	-	-	-	-	0.00080	0.00079	0.215	0.577	-	-	-	-	2.84	2.71
95th percentile	27.4	-	-	-	-	0.00109	0.00126	0.250	0.609	-	-	-	-	3.12	2.92
Standard deviation	2.3	-	-	-	-	0.00031	0.00036	0.050	0.148	-	-	-	-	0.38	0.32
Standard error	0.6	-	-	-	-	0.00008	0.00010	0.014	0.041	-	-	-	-	0.11	0.09
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	0	13	13	13	13	1	3	0	0	13	13	13	13	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	7.7	23.1	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

519	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.8558	-	0.0012500	-	7.60000	0.00140	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.1681	-	-	-	46.00000	0.02500	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Minimum	0.00826	0.0105	-	-	0.00145	0.00148	-	-	-	-	0.254	0.272	0.000460	0.000434	3.22
Mean	0.02724	0.0303	-	-	0.00174	0.00180	-	-	-	-	0.441	0.433	0.000995	0.001028	3.86
Median	0.02860	0.0310	-	-	0.00164	0.00172	-	-	-	-	0.466	0.450	0.000971	0.000964	3.86
Maximum	0.04590	0.0474	-	-	0.00309	0.00309	-	-	-	-	0.614	0.594	0.002600	0.002660	4.41
25th percentile	0.01950	0.0233	-	-	0.00159	0.00158	-	-	-	-	0.349	0.329	0.000715	0.000880	3.68
75th percentile	0.03390	0.0378	-	-	0.00170	0.00183	-	-	-	-	0.522	0.510	0.001060	0.001080	4.05
95th percentile	0.04434	0.0452	-	-	0.00234	0.00238	-	-	-	-	0.609	0.592	0.001736	0.001754	4.28
Standard deviation	0.01198	0.0116	-	-	0.00042	0.00041	-	-	-	-	0.114	0.111	0.000529	0.000536	0.34
Standard error	0.00332	0.0032	-	-	0.00012	0.00011	-	-	-	-	0.032	0.031	0.000147	0.000149	0.09
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	0	0	13	13	0	0	13	13	13	13	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

519	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.28	-	-	7.22	7.29	0.0902	0.0911	5.07	5.30	-	-	-	-	-	0.00015
Mean	4.03	-	-	8.54	8.61	0.1041	0.1066	7.39	7.79	-	-	-	-	-	0.00107
Median	4.11	-	-	8.45	8.20	0.1020	0.1060	6.92	7.65	-	-	-	-	-	0.00088
Maximum	4.48	-	-	12.80	13.60	0.1270	0.1350	10.80	11.20	-	-	-	-	-	0.00268
25th percentile	3.74	-	-	7.53	7.53	0.0982	0.0982	6.56	6.72	-	-	-	-	-	0.00040
75th percentile	4.36	-	-	9.11	8.92	0.1120	0.1150	8.11	8.83	-	-	-	-	-	0.00142
95th percentile	4.47	-	-	10.65	11.06	0.1210	0.1254	9.82	9.99	-	-	-	-	-	0.00258
Standard deviation	0.36	-	-	1.48	1.64	0.0104	0.0121	1.53	1.54	-	-	-	-	-	0.00086
Standard error	0.10	-	-	0.41	0.46	0.0029	0.0033	0.42	0.43	-	-	-	-	-	0.00024
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	0	13	13	0	0	0	0	0	0	13	13	13	13	13	3
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	23.1

Notes:

519	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.3 (Cont'd.)

	Metals								Nutrients				
	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0067	-	-	-	1.4800	3.0000	0.0200	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.0165000	-	-	0.0315	-	-	-	7.7100	32.8000	0.0600	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.0075000	-	0.06000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.0000290	0.0000300	-	-	-	-	-	-	0.0025	0.0025	-	-	0.0025
Mean	0.0000412	0.0000436	-	-	-	-	-	-	0.0100	0.0366	-	-	0.0063
Median	0.0000370	0.0000380	-	-	-	-	-	-	0.0090	0.0331	-	-	0.0051
Maximum	0.0000940	0.0000940	-	-	-	-	-	-	0.0210	0.1260	-	-	0.0153
25th percentile	0.0000330	0.0000360	-	-	-	-	-	-	0.0025	0.0053	-	-	0.0040
75th percentile	0.0000420	0.0000440	-	-	-	-	-	-	0.0161	0.0602	-	-	0.0071
95th percentile	0.0000652	0.0000664	-	-	-	-	-	-	0.0200	0.0901	-	-	0.0127
Standard deviation	0.0000167	0.0000161	-	-	-	-	-	-	0.0067	0.0366	-	-	0.0037
Standard error	0.0000046	0.0000045	-	-	-	-	-	-	0.0019	0.0102	-	-	0.0010
Sample size	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of non-detects	0	0	13	11	12	13	12	13	4	3	13	13	0
Percentage of non-detects	0.0	0.0	100.0	84.6	92.3	100.0	92.3	100.0	30.8	23.1	100.0	100.0	0.0

Notes:

519	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.4 2025 Kemess Water Quality Data – (ATWL-3).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.1290
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.211	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-3	2025-09-17 13:34:00	VA25C5004-007	-	182	6	1.27	7.89	6.4	74.9	0.025	1.28	0.054	73.7	73.9	19.8	0.0036	0.0206
		Minimum	-	182	6	1.27	7.89	6.4	74.9	-	1.28	0.054	73.7	73.9	19.8	0.0036	0.0206
		Mean	-	182	6	1.27	7.89	6.4	74.9	-	1.28	0.054	73.7	73.9	19.8	0.0036	0.0206
		Median	-	182	6	1.27	7.89	6.4	74.9	-	1.28	0.054	73.7	73.9	19.8	0.0036	0.0206
		Maximum	-	182	6	1.27	7.89	6.4	74.9	-	1.28	0.054	73.7	73.9	19.8	0.0036	0.0206
		25th percentile	-	182	6	1.27	7.89	6.4	74.9	-	1.28	0.054	73.7	73.9	19.8	0.0036	0.0206
		75th percentile	-	182	6	1.27	7.89	6.4	74.9	-	1.28	0.054	73.7	73.9	19.8	0.0036	0.0206
		95th percentile	-	182	6	1.27	7.89	6.4	74.9	-	1.28	0.054	73.7	73.9	19.8	0.0036	0.0206
		Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Sample size	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	-	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		Percentage of non-detects	-	0.0	0.0	0.0	0.0	0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

46	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.4 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001690	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0004300	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
ATWL-3 2025-09-17 13:34:00 VA25C5004-007	0.00005	0.00005	0.00023	0.00029	0.0299	0.0298	0.00005	0.00005	0.000025	0.000025	0.005	0.005	0.0000061	0.0000062	24.7
Minimum	-	-	0.00023	0.00029	0.0299	0.0298	-	-	-	-	-	-	0.0000061	0.0000062	24.7
Mean	-	-	0.00023	0.00029	0.0299	0.0298	-	-	-	-	-	-	0.0000061	0.0000062	24.7
Median	-	-	0.00023	0.00029	0.0299	0.0298	-	-	-	-	-	-	0.0000061	0.0000062	24.7
Maximum	-	-	0.00023	0.00029	0.0299	0.0298	-	-	-	-	-	-	0.0000061	0.0000062	24.7
25th percentile	-	-	0.00023	0.00029	0.0299	0.0298	-	-	-	-	-	-	0.0000061	0.0000062	24.7
75th percentile	-	-	0.00023	0.00029	0.0299	0.0298	-	-	-	-	-	-	0.0000061	0.0000062	24.7
95th percentile	-	-	0.00023	0.00029	0.0299	0.0298	-	-	-	-	-	-	0.0000061	0.0000062	24.7
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	1	1	0	0	0	0	1	1	1	1	1	1	0	0	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0

Notes:

46	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.4 (Cont'd.)

			Metals													
			Calcium (Ca)-Total	Cesium (Cs)-Dissolved	Cesium (Cs)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total
		Detection Limit	0.05	0.00001	0.00001	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	0.00045	-	0.00047	-	-	-	-	0.003138	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	0.00286	-	0.350	1.000	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.00250	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-3	2025-09-17 13:34:00	VA25C5004-007	24.8	0.000005	0.000005	0.00025	0.00025	0.00005	0.00005	0.00061	0.00072	0.137	0.301	0.000025	0.000025	0.0005	0.0005
		Minimum	24.8	-	-	-	-	-	-	0.00061	0.00072	0.137	0.301	-	-	-	-
		Mean	24.8	-	-	-	-	-	-	0.00061	0.00072	0.137	0.301	-	-	-	-
		Median	24.8	-	-	-	-	-	-	0.00061	0.00072	0.137	0.301	-	-	-	-
		Maximum	24.8	-	-	-	-	-	-	0.00061	0.00072	0.137	0.301	-	-	-	-
		25th percentile	24.8	-	-	-	-	-	-	0.00061	0.00072	0.137	0.301	-	-	-	-
		75th percentile	24.8	-	-	-	-	-	-	0.00061	0.00072	0.137	0.301	-	-	-	-
		95th percentile	24.8	-	-	-	-	-	-	0.00061	0.00072	0.137	0.301	-	-	-	-
		Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	0	1	1	1	1	1	1	0	0	0	0	1	1	1	1
		Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0

Notes:

46	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.4 (Cont'd.)

	Metals														
	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Rubidium (Rb)-Dissolved
Detection Limit	0.005	0.005	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.05	0.05	0.0002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.9293	-	0.0012500	-	7.60000	0.00160	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	1.3522	-	-	-	46.00000	0.02760	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	0.01600	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	0.03400	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	0.28400	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
ATWL-3 2025-09-17 13:34:00 VA25C5004-007	2.93	2.9	0.0132	0.0202	0.0000025	0.0000025	0.0011	0.00122	0.00025	0.00025	0.025	0.025	0.584	0.603	0.00032
Minimum	2.93	2.9	0.0132	0.0202	-	-	0.0011	0.00122	-	-	-	-	0.584	0.603	0.00032
Mean	2.93	2.9	0.0132	0.0202	-	-	0.0011	0.00122	-	-	-	-	0.584	0.603	0.00032
Median	2.93	2.9	0.0132	0.0202	-	-	0.0011	0.00122	-	-	-	-	0.584	0.603	0.00032
Maximum	2.93	2.9	0.0132	0.0202	-	-	0.0011	0.00122	-	-	-	-	0.584	0.603	0.00032
25th percentile	2.93	2.9	0.0132	0.0202	-	-	0.0011	0.00122	-	-	-	-	0.584	0.603	0.00032
75th percentile	2.93	2.9	0.0132	0.0202	-	-	0.0011	0.00122	-	-	-	-	0.584	0.603	0.00032
95th percentile	2.93	2.9	0.0132	0.0202	-	-	0.0011	0.00122	-	-	-	-	0.584	0.603	0.00032
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	0	0	0	1	1	0	0	1	1	1	1	0	0	0
Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0

Notes:

46	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.4 (Cont'd.)

			Metals														
			Rubidium (Rb)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Tellurium (Te)-Dissolved	Tellurium (Te)-Total
		Detection Limit	0.0002	0.00005	0.00005	0.05	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.0002	0.0002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.002000	-	-	-	0.000120	-	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	1.250	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
ATWL-3	2025-09-17 13:34:00	VA25C5004-007	0.00035	0.000462	0.000542	3.84	4.49	0.000005	0.000005	7.93	8.46	0.107	0.11	6.6	7.68	0.0001	0.0001
		Minimum	0.00035	0.000462	0.000542	3.84	4.49	-	-	7.93	8.46	0.107	0.11	6.6	7.68	-	-
		Mean	0.00035	0.000462	0.000542	3.84	4.49	-	-	7.93	8.46	0.107	0.11	6.6	7.68	-	-
		Median	0.00035	0.000462	0.000542	3.84	4.49	-	-	7.93	8.46	0.107	0.11	6.6	7.68	-	-
		Maximum	0.00035	0.000462	0.000542	3.84	4.49	-	-	7.93	8.46	0.107	0.11	6.6	7.68	-	-
		25th percentile	0.00035	0.000462	0.000542	3.84	4.49	-	-	7.93	8.46	0.107	0.11	6.6	7.68	-	-
		75th percentile	0.00035	0.000462	0.000542	3.84	4.49	-	-	7.93	8.46	0.107	0.11	6.6	7.68	-	-
		95th percentile	0.00035	0.000462	0.000542	3.84	4.49	-	-	7.93	8.46	0.107	0.11	6.6	7.68	-	-
		Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
		Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0

Notes:

46	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.4 (Cont'd.)

	Metals														
	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Thorium (Th)-Dissolved	Thorium (Th)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total	Tungsten (W)-Dissolved	Tungsten (W)-Total	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved
Detection Limit	0.00001	0.00001	0.0001	0.0001	0.0001	0.0001	0.0003	0.0003	0.0001	0.0001	0.00001	0.00001	0.0005	0.0005	0.001
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0125
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	0.016500	-	-	0.0381
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.000030	-	-	-	-	-	-	-	-	-	0.007500	-	0.06000	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
ATWL-3 2025-09-17 13:34:00 VA25C5004-007	0.000005	0.000005	0.00005	0.00005	0.00005	0.00005	0.00015	0.00057	0.00005	0.00005	0.000031	0.000034	0.00025	0.00025	0.0005
Minimum	-	-	-	-	-	-	-	0.00057	-	-	0.000031	0.000034	-	-	-
Mean	-	-	-	-	-	-	-	0.00057	-	-	0.000031	0.000034	-	-	-
Median	-	-	-	-	-	-	-	0.00057	-	-	0.000031	0.000034	-	-	-
Maximum	-	-	-	-	-	-	-	0.00057	-	-	0.000031	0.000034	-	-	-
25th percentile	-	-	-	-	-	-	-	0.00057	-	-	0.000031	0.000034	-	-	-
75th percentile	-	-	-	-	-	-	-	0.00057	-	-	0.000031	0.000034	-	-	-
95th percentile	-	-	-	-	-	-	-	0.00057	-	-	0.000031	0.000034	-	-	-
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1
Percentage of non-detects	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0

Notes:

46	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.4 (Cont'd.)

			Metals			Nutrients				
			Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	1.8300	3.000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	17.4000	32.800	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-
Location	DateTime	COC Code								
ATWL-3	2025-09-17 13:34:00	VA25C5004-007	0.0015	0.0001	0.0001	0.0113	0.022	0.0005	0.0005	0.0104
		Minimum	-	-	-	0.0113	0.022	-	-	0.0104
		Mean	-	-	-	0.0113	0.022	-	-	0.0104
		Median	-	-	-	0.0113	0.022	-	-	0.0104
		Maximum	-	-	-	0.0113	0.022	-	-	0.0104
		25th percentile	-	-	-	0.0113	0.022	-	-	0.0104
		75th percentile	-	-	-	0.0113	0.022	-	-	0.0104
		95th percentile	-	-	-	0.0113	0.022	-	-	0.0104
		Standard deviation	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-
		Sample size	1	1	1	1	1	1	1	1
		Number of non-detects	1	1	1	0	0	1	1	0
		Percentage of non-detects	100.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0

Notes:

46	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.5 2025 Kemess Water Quality Data – (LREF-1).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.165
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-		-	-	600.00	1.013	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-		-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-		-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-		-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
LREF-1	2025-09-15 10:06:00	VA25C4426-003	-	98.3	1.5	0.3	7.64	6.6	46.1	0.025	0.25	0.042	45	43.3	4.79	0.0036	0.011
		Minimum	-	98.3	-	0.3	7.64	6.6	46.1	-	-	0.042	45	43.3	4.79	0.0036	0.011
		Mean	-	98.3	-	0.3	7.64	6.6	46.1	-	-	0.042	45	43.3	4.79	0.0036	0.011
		Median	-	98.3	-	0.3	7.64	6.6	46.1	-	-	0.042	45	43.3	4.79	0.0036	0.011
		Maximum	-	98.3	-	0.3	7.64	6.6	46.1	-	-	0.042	45	43.3	4.79	0.0036	0.011
		25th percentile	-	98.3	-	0.3	7.64	6.6	46.1	-	-	0.042	45	43.3	4.79	0.0036	0.011
		75th percentile	-	98.3	-	0.3	7.64	6.6	46.1	-	-	0.042	45	43.3	4.79	0.0036	0.011
		95th percentile	-	98.3	-	0.3	7.64	6.6	46.1	-	-	0.042	45	43.3	4.79	0.0036	0.011
		Standard deviation	-	-	-	-	-		-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-		-	-	-	-	-	-	-	-	-
		Sample size	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	-	0	1	0	0	0	0	1	1	0	0	0	0	0	0
		Percentage of non-detects	-	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.5 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001180	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002580	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.00000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
LREF-1 2025-09-15 10:06:00 VA25C4426-003	0.00005	0.00005	0.00097	0.00097	0.0056	0.00578	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	16.2
Minimum	-	-	0.00097	0.00097	0.0056	0.00578	-	-	-	-	-	-	-	-	16.2
Mean	-	-	0.00097	0.00097	0.0056	0.00578	-	-	-	-	-	-	-	-	16.2
Median	-	-	0.00097	0.00097	0.0056	0.00578	-	-	-	-	-	-	-	-	16.2
Maximum	-	-	0.00097	0.00097	0.0056	0.00578	-	-	-	-	-	-	-	-	16.2
25th percentile	-	-	0.00097	0.00097	0.0056	0.00578	-	-	-	-	-	-	-	-	16.2
75th percentile	-	-	0.00097	0.00097	0.0056	0.00578	-	-	-	-	-	-	-	-	16.2
95th percentile	-	-	0.00097	0.00097	0.0056	0.00578	-	-	-	-	-	-	-	-	16.2
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	1	1	0	0	0	0	1	1	1	1	1	1	1	1	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.5 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.0007	-	-	-	-	0.002824	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.0041	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
LREF-1 2025-09-15 10:06:00 VA25C4426-003	15.5	0.00025	0.00025	0.00005	0.00005	0.0001	0.00025	0.005	0.011	0.000025	0.000025	0.0005	0.0005	1.11	1.12
Minimum	15.5	-	-	-	-	-	-	-	0.011	-	-	-	-	1.11	1.12
Mean	15.5	-	-	-	-	-	-	-	0.011	-	-	-	-	1.11	1.12
Median	15.5	-	-	-	-	-	-	-	0.011	-	-	-	-	1.11	1.12
Maximum	15.5	-	-	-	-	-	-	-	0.011	-	-	-	-	1.11	1.12
25th percentile	15.5	-	-	-	-	-	-	-	0.011	-	-	-	-	1.11	1.12
75th percentile	15.5	-	-	-	-	-	-	-	0.011	-	-	-	-	1.11	1.12
95th percentile	15.5	-	-	-	-	-	-	-	0.011	-	-	-	-	1.11	1.12
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	1	1	1	1	1	1	1	0	1	1	1	1	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.5 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.80300	-	0.0012500	-	7.600000	0.00140	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.03590	-	-	-	46.000000	0.02080	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
LREF-1 2025-09-15 10:06:00 VA25C4426-003	0.00087	0.00081	0.0000025	0.0000025	0.000593	0.000595	0.00025	0.00025	0.025	0.025	0.349	0.33	0.000192	0.000177	4.74
Minimum	0.00087	0.00081	-	-	0.000593	0.000595	-	-	-	-	0.349	0.33	0.000192	0.000177	4.74
Mean	0.00087	0.00081	-	-	0.000593	0.000595	-	-	-	-	0.349	0.33	0.000192	0.000177	4.74
Median	0.00087	0.00081	-	-	0.000593	0.000595	-	-	-	-	0.349	0.33	0.000192	0.000177	4.74
Maximum	0.00087	0.00081	-	-	0.000593	0.000595	-	-	-	-	0.349	0.33	0.000192	0.000177	4.74
25th percentile	0.00087	0.00081	-	-	0.000593	0.000595	-	-	-	-	0.349	0.33	0.000192	0.000177	4.74
75th percentile	0.00087	0.00081	-	-	0.000593	0.000595	-	-	-	-	0.349	0.33	0.000192	0.000177	4.74
95th percentile	0.00087	0.00081	-	-	0.000593	0.000595	-	-	-	-	0.349	0.33	0.000192	0.000177	4.74
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.5 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
LREF-1 2025-09-15 10:06:00 VA25C4426-003	4.89	0.000005	0.000005	1.52	1.46	0.0345	0.0357	1.52	1.32	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
Minimum	4.89	-	-	1.52	1.46	0.0345	0.0357	1.52	1.32	-	-	-	-	-	-
Mean	4.89	-	-	1.52	1.46	0.0345	0.0357	1.52	1.32	-	-	-	-	-	-
Median	4.89	-	-	1.52	1.46	0.0345	0.0357	1.52	1.32	-	-	-	-	-	-
Maximum	4.89	-	-	1.52	1.46	0.0345	0.0357	1.52	1.32	-	-	-	-	-	-
25th percentile	4.89	-	-	1.52	1.46	0.0345	0.0357	1.52	1.32	-	-	-	-	-	-
75th percentile	4.89	-	-	1.52	1.46	0.0345	0.0357	1.52	1.32	-	-	-	-	-	-
95th percentile	4.89	-	-	1.52	1.46	0.0345	0.0357	1.52	1.32	-	-	-	-	-	-
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	1	1	0	0	0	0	0	0	1	1	1	1	1	1
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.5 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0057	-	-	-	1.9100	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0252	-	-	-	11.5000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
LREF-1	2025-09-15 10:06:00	VA25C4426-003	0.000082	0.000089	0.00094	0.00091	0.0005	0.0015	0.0001	0.0001	0.0088	0.0055	0.0005	0.0037	0.0086
		Minimum	0.000082	0.000089	0.00094	0.00091	-	-	-	-	0.0088	0.0055	-	0.0037	0.0086
		Mean	0.000082	0.000089	0.00094	0.00091	-	-	-	-	0.0088	0.0055	-	0.0037	0.0086
		Median	0.000082	0.000089	0.00094	0.00091	-	-	-	-	0.0088	0.0055	-	0.0037	0.0086
		Maximum	0.000082	0.000089	0.00094	0.00091	-	-	-	-	0.0088	0.0055	-	0.0037	0.0086
		25th percentile	0.000082	0.000089	0.00094	0.00091	-	-	-	-	0.0088	0.0055	-	0.0037	0.0086
		75th percentile	0.000082	0.000089	0.00094	0.00091	-	-	-	-	0.0088	0.0055	-	0.0037	0.0086
		95th percentile	0.000082	0.000089	0.00094	0.00091	-	-	-	-	0.0088	0.0055	-	0.0037	0.0086
		Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-
		Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	0	0	0	0	1	1	1	1	0	0	1	0	0
		Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	0.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.6 2025 Kemess Water Quality Data – (S13-2).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.25	2.5	0.1	0.6	0.6	1.5	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.0	-	-	150.00	-	-	-	429	-	0.2078
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.615	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
S13-2	2025-05-06 13:45:00	VA25B0742-011	3.06	785	10.6	2.01	8.15	-	184	-	1.25	-	188	194	199	0.0015	0.0780
S13-2	2025-06-02 11:25:00	VA25B3466-012	3.95	787	1.5	0.17	8.32	-	192	-	1.25	-	208	219	217	0.0026	0.0054
S13-2	2025-07-01 08:55:00	VA25B6420-012	4.53	818	12.4	1.32	8.52	7.4	195	0.125	1.25	0.159	201	200	195	0.0024	0.0740
		Minimum	3.06	785	1.5	0.17	8.15	7.4	184	-	-	0.159	188	194	195	0.0015	0.0054
		Mean	3.85	797	8.2	1.17	8.33	7.4	190	-	-	0.159	199	204	204	0.0022	0.0525
		Median	3.95	787	10.6	1.32	8.32	7.4	192	-	-	0.159	201	200	199	0.0024	0.0740
		Maximum	4.53	818	12.4	2.01	8.52	7.4	195	-	-	0.159	208	219	217	0.0026	0.0780
		25th percentile	3.50	786	6.0	0.74	8.23	7.4	188	-	-	0.159	194	197	197	0.0019	0.0397
		75th percentile	4.24	802	11.5	1.67	8.42	7.4	194	-	-	0.159	204	210	208	0.0025	0.0760
		95th percentile	4.47	815	12.2	1.94	8.50	7.4	195	-	-	0.159	207	217	215	0.0026	0.0776
		Standard deviation	0.74	19	5.8	0.93	0.19	-	6	-	-	-	10	13	12	0.0006	0.0408
		Standard error	0.43	11	3.4	0.54	0.11	-	3	-	-	-	6	8	7	0.0003	0.0236
		Sample size	3	3	3	3	3	1	3	1	3	1	3	3	3	3	3
		Number of non-detects	0	0	1	0	0	0	0	1	3	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	33.3	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

97	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
7	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.6 (Cont'd.)

			Metals														
			Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
		Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0003370	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0011270	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
S13-2	2025-05-06 13:45:00	VA25B0742-011	0.00017	0.00020	0.00135	0.00150	0.0505	0.0524	0.00001	0.00001	0.000025	0.000025	0.027	0.030	0.0000070	0.000017	66.8
S13-2	2025-06-02 11:25:00	VA25B3466-012	0.00019	0.00078	0.00086	0.00097	0.0489	0.0492	0.00001	0.00001	0.000025	0.000025	0.026	0.028	0.0000050	0.000005	73.5
S13-2	2025-07-01 08:55:00	VA25B6420-012	0.00018	0.00018	0.00072	0.00081	0.0476	0.0491	0.00001	0.00001	0.000025	0.000025	0.025	0.026	0.0000025	0.000005	71.0
		Minimum	0.00017	0.00018	0.00072	0.00081	0.0476	0.0491	-	-	-	-	0.025	0.026	-	-	66.8
		Mean	0.00018	0.00039	0.00098	0.00109	0.0490	0.0502	-	-	-	-	0.026	0.028	-	-	70.4
		Median	0.00018	0.00020	0.00086	0.00097	0.0489	0.0492	-	-	-	-	0.026	0.028	-	-	71.0
		Maximum	0.00019	0.00078	0.00135	0.00150	0.0505	0.0524	-	-	-	-	0.027	0.030	-	-	73.5
		25th percentile	0.00018	0.00019	0.00079	0.00089	0.0482	0.0492	-	-	-	-	0.026	0.027	-	-	68.9
		75th percentile	0.00018	0.00049	0.00110	0.00124	0.0497	0.0508	-	-	-	-	0.026	0.029	-	-	72.2
		95th percentile	0.00019	0.00072	0.00130	0.00145	0.0503	0.0521	-	-	-	-	0.027	0.030	-	-	73.2
		Standard deviation	0.00001	0.00034	0.00033	0.00036	0.0015	0.0019	-	-	-	-	0.001	0.002	-	-	3.4
		Standard error	0.00001	0.00020	0.00019	0.00021	0.0008	0.0011	-	-	-	-	0.001	0.001	-	-	2.0
		Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		Number of non-detects	0	0	0	0	0	0	3	3	3	3	0	0	2	2	0
		Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	66.7	66.7	0.0

Notes:

97	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
7	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.6 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00066	-	0.00112	-	-	-	-	0.004211	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00666	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
S13-2 2025-05-06 13:45:00 VA25B0742-011	69.4	0.00025	0.00025	0.00005	0.00012	0.00147	0.00202	0.012	0.133	0.000025	0.000025	0.0072	0.0075	5.28	5.16
S13-2 2025-06-02 11:25:00 VA25B3466-012	78.6	0.00025	0.00025	0.00005	0.00005	0.00129	0.00135	0.005	0.011	0.000025	0.000025	0.0074	0.0080	6.05	5.57
S13-2 2025-07-01 08:55:00 VA25B6420-012	70.6	0.00025	0.00025	0.00005	0.00005	0.00120	0.00185	0.005	0.144	0.000025	0.000025	0.0064	0.0070	5.69	5.72
Minimum	69.4	-	-	-	-	0.00120	0.00135	-	0.011	-	-	0.0064	0.0070	5.28	5.16
Mean	72.9	-	-	-	-	0.00132	0.00174	-	0.096	-	-	0.0070	0.0075	5.67	5.48
Median	70.6	-	-	-	-	0.00129	0.00185	-	0.133	-	-	0.0072	0.0075	5.69	5.57
Maximum	78.6	-	-	-	-	0.00147	0.00202	-	0.144	-	-	0.0074	0.0080	6.05	5.72
25th percentile	70.0	-	-	-	-	0.00124	0.00160	-	0.072	-	-	0.0068	0.0072	5.48	5.36
75th percentile	74.6	-	-	-	-	0.00138	0.00194	-	0.138	-	-	0.0073	0.0078	5.87	5.64
95th percentile	77.8	-	-	-	-	0.00145	0.00200	-	0.143	-	-	0.0074	0.0080	6.01	5.70
Standard deviation	5.0	-	-	-	-	0.00014	0.00035	-	0.074	-	-	0.0005	0.0005	0.39	0.29
Standard error	2.9	-	-	-	-	0.00008	0.00020	-	0.043	-	-	0.0003	0.0003	0.22	0.17
Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Number of non-detects	0	3	3	3	2	0	0	2	0	3	3	0	0	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	66.7	0.0	0.0	66.7	0.0	100.0	100.0	0.0	0.0	0.0	0.0

Notes:

97	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
7	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.6 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	1.4322	-	0.0012500	-	7.6000	0.00330	-	-	-	-	-	-	0.0020	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	2.6118	-	-	-	46.0000	0.06120	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.0160	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.0340	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.2840	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
S13-2 2025-05-06 13:45:00 VA25B0742-011	0.03980	0.0658	0.0000025	0.0000025	0.0176	**0.0190**	0.00025	0.00025	0.025	0.025	0.804	0.729	0.0854	**0.0853**	4.43
S13-2 2025-06-02 11:25:00 VA25B3466-012	0.00294	0.0043	0.0000025	0.0000025	0.0154	**0.0166**	0.00025	0.00025	0.025	0.025	0.714	0.726	0.0833	**0.0878**	3.91
S13-2 2025-07-01 08:55:00 VA25B6420-012	0.00495	0.0283	0.0000025	0.0000025	0.0129	0.0126	0.00025	0.00025	0.025	0.025	0.512	0.518	0.0686	**0.0710**	3.94
Minimum	0.00294	0.0043	-	-	0.0129	0.0126	-	-	-	-	0.512	0.518	0.0686	0.0710	3.91
Mean	0.01590	0.0328	-	-	0.0153	0.0161	-	-	-	-	0.677	0.658	0.0791	0.0814	4.09
Median	0.00495	0.0283	-	-	0.0154	0.0166	-	-	-	-	0.714	0.726	0.0833	0.0853	3.94
Maximum	0.03980	0.0658	-	-	0.0176	0.0190	-	-	-	-	0.804	0.729	0.0854	0.0878	4.43
25th percentile	0.00395	0.0163	-	-	0.0141	0.0146	-	-	-	-	0.613	0.622	0.0759	0.0781	3.92
75th percentile	0.02238	0.0470	-	-	0.0165	0.0178	-	-	-	-	0.759	0.728	0.0844	0.0866	4.18
95th percentile	0.03632	0.0620	-	-	0.0174	0.0188	-	-	-	-	0.795	0.729	0.0852	0.0876	4.38
Standard deviation	0.02073	0.0310	-	-	0.0024	0.0032	-	-	-	-	0.150	0.121	0.0092	0.0091	0.29
Standard error	0.01197	0.0179	-	-	0.0014	0.0019	-	-	-	-	0.086	0.070	0.0053	0.0052	0.17
Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Number of non-detects	0	0	3	3	0	0	3	3	3	3	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

97	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
7	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.6 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
		Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**															
S13-2	2025-05-06 13:45:00	VA25B0742-011	4.45	0.000005	0.000005	96.8	104.0	0.669	0.647	69.0	70.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.00157
S13-2	2025-06-02 11:25:00	VA25B3466-012	3.92	0.000005	0.000005	102.0	101.0	0.741	0.794	75.0	80.7	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
S13-2	2025-07-01 08:55:00	VA25B6420-012	4.47	0.000005	0.000005	92.0	98.4	0.767	0.748	65.7	74.1	0.000005	0.000005	0.00005	0.00005	0.00015	0.00180
		Minimum	3.92	-	-	92.0	98.4	0.669	0.647	65.7	70.4	-	-	-	-	-	0.00015
		Mean	4.28	-	-	96.9	101.1	0.726	0.730	69.9	75.1	-	-	-	-	-	0.00117
		Median	4.45	-	-	96.8	101.0	0.741	0.748	69.0	74.1	-	-	-	-	-	0.00157
		Maximum	4.47	-	-	102.0	104.0	0.767	0.794	75.0	80.7	-	-	-	-	-	0.00180
		25th percentile	4.19	-	-	94.4	99.7	0.705	0.698	67.3	72.2	-	-	-	-	-	0.00086
		75th percentile	4.46	-	-	99.4	102.5	0.754	0.771	72.0	77.4	-	-	-	-	-	0.00168
		95th percentile	4.47	-	-	101.5	103.7	0.764	0.789	74.4	80.0	-	-	-	-	-	0.00178
		Standard deviation	0.31	-	-	5.0	2.8	0.051	0.075	4.7	5.2	-	-	-	-	-	0.00089
		Standard error	0.18	-	-	2.9	1.6	0.029	0.043	2.7	3.0	-	-	-	-	-	0.00052
		Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		Number of non-detects	0	3	3	0	0	0	0	0	0	3	3	3	3	3	1
		Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	33.3

Notes:

97	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
7	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.6 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.025	0.005	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0253	-	-	-	1.8800	3.00	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.01650	-	-	0.0868	-	-	-	13.0000	32.80	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.00750	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
S13-2	2025-05-06 13:45:00	VA25B0742-011	0.001260	0.00129	0.00166	0.00220	0.0005	0.0015	0.0001	0.0001	0.0090	6.75	0.0065	0.0040	0.0082
S13-2	2025-06-02 11:25:00	VA25B3466-012	0.001290	0.00132	0.00145	0.00153	0.0005	0.0015	0.0001	0.0001	0.0025	5.08	0.0025	0.0005	0.0043
S13-2	2025-07-01 08:55:00	VA25B6420-012	0.000986	0.00100	0.00115	0.00164	0.0005	0.0015	0.0001	0.0001	0.0061	4.70	0.0025	0.0005	0.0040
		Minimum	0.000986	0.00100	0.00115	0.00153	-	-	-	-	0.0025	4.70	-	-	0.0040
		Mean	0.001179	0.00120	0.00142	0.00179	-	-	-	-	0.0059	5.51	-	-	0.0055
		Median	0.001260	0.00129	0.00145	0.00164	-	-	-	-	0.0061	5.08	-	-	0.0043
		Maximum	0.001290	0.00132	0.00166	0.00220	-	-	-	-	0.0090	6.75	-	-	0.0082
		25th percentile	0.001123	0.00114	0.00130	0.00158	-	-	-	-	0.0043	4.89	-	-	0.0042
		75th percentile	0.001275	0.00130	0.00156	0.00192	-	-	-	-	0.0075	5.92	-	-	0.0063
		95th percentile	0.001287	0.00132	0.00164	0.00214	-	-	-	-	0.0087	6.58	-	-	0.0078
		Standard deviation	0.000168	0.00018	0.00026	0.00036	-	-	-	-	0.0033	1.09	-	-	0.0023
		Standard error	0.000097	0.00010	0.00015	0.00021	-	-	-	-	0.0019	0.63	-	-	0.0014
		Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3
		Number of non-detects	0	0	0	0	3	3	3	3	1	0	2	2	0
		Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	33.3	0.0	66.7	66.7	0.0

Notes:

97	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
7	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.7 2025 Kemess Water Quality Data – (SP27).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.25	0.5	0.1	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309	-	0.1962
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.502	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
SP27	2025-04-06 15:05:00	VA25A7989-009	4.58	626	7.9	2.87	8.04	7.37	125	-	0.62	-	123	115	163	0.0432	0.1660
SP27	2025-05-06 10:20:00	VA25B0742-010	3.01	751	3.8	0.44	8.13	-	155	-	1.25	-	130	131	196	0.0032	0.0124
SP27	2025-06-02 14:15:00	VA25B3466-011	3.26	792	1.5	0.24	8.26	-	154	-	1.25	-	140	147	229	0.0027	0.0056
SP27	2025-07-01 10:45:00	VA25B6420-011	3.70	890	1.5	0.19	8.44	7.51	151	0.125	1.25	0.271	152	165	242	0.0035	0.0114
		Minimum	3.01	626	1.5	0.19	8.04	7.37	125	-	-	0.271	123	115	163	0.0027	0.0056
		Mean	3.64	765	3.7	0.94	8.22	7.44	146	-	-	0.271	136	140	208	0.0132	0.0489
		Median	3.48	772	2.6	0.34	8.20	7.44	152	-	-	0.271	135	139	212	0.0034	0.0119
		Maximum	4.58	890	7.9	2.87	8.44	7.51	155	-	-	0.271	152	165	242	0.0432	0.1660
		25th percentile	3.20	720	1.5	0.23	8.11	7.40	144	-	-	0.271	128	127	188	0.0031	0.0100
		75th percentile	3.92	816	4.8	1.05	8.30	7.48	154	-	-	0.271	143	152	232	0.0134	0.0508
		95th percentile	4.45	875	7.3	2.51	8.41	7.50	155	-	-	0.271	150	162	240	0.0372	0.1430
		Standard deviation	0.69	109	3.0	1.29	0.17	0.10	14	-	-	-	13	21	35	0.0200	0.0782
		Standard error	0.35	55	1.5	0.65	0.09	0.07	7	-	-	-	6	11	18	0.0100	0.0391
		Sample size	4	4	4	4	4	2	4	1	4	1	4	4	4	4	4
		Number of non-detects	0	0	2	0	0	0	0	1	3	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	50.0	0.0	0.0	0.0	0.0	100.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

125	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
3	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.7 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0002460	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0007280	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
SP27 2025-04-06 15:05:00 VA25A7989-009	0.00012	0.00014	0.00060	0.00071	0.0389	0.0393	0.00001	0.00001	0.000025	0.000025	0.026	0.025	0.0000075	0.0000198	47.3
SP27 2025-05-06 10:20:00 VA25B0742-010	0.00012	0.00013	0.00093	0.00097	0.0465	0.0460	0.00001	0.00001	0.000025	0.000025	0.032	0.034	0.0000063	0.0000088	50.3
SP27 2025-06-02 14:15:00 VA25B3466-011	0.00012	0.00013	0.00079	0.00082	0.0535	0.0542	0.00001	0.00001	0.000025	0.000025	0.032	0.037	0.0000075	0.0000050	53.8
SP27 2025-07-01 10:45:00 VA25B6420-011	0.00012	0.00013	0.00078	0.00073	0.0580	0.0588	0.00001	0.00001	0.000025	0.000025	0.034	0.036	0.0000050	0.0000075	58.5
Minimum	0.00012	0.000130	0.00060	0.00071	0.0389	0.0393	-	-	-	-	0.026	0.025	0.0000050	0.0000050	47.3
Mean	0.00012	0.000130	0.00078	0.00081	0.0492	0.0496	-	-	-	-	0.031	0.033	0.0000066	0.0000103	52.5
Median	0.00012	0.000130	0.00078	0.00078	0.0500	0.0501	-	-	-	-	0.032	0.035	0.0000069	0.0000082	52.0
Maximum	0.00012	0.000140	0.00093	0.00097	0.0580	0.0588	-	-	-	-	0.034	0.037	0.0000075	0.0000198	58.5
25th percentile	0.00012	0.000130	0.00074	0.00073	0.0446	0.0443	-	-	-	-	0.030	0.032	0.0000060	0.0000069	49.5
75th percentile	0.00012	0.000130	0.00082	0.00086	0.0546	0.0553	-	-	-	-	0.032	0.036	0.0000075	0.0000115	55.0
95th percentile	0.00012	0.000140	0.00091	0.00095	0.0573	0.0581	-	-	-	-	0.034	0.037	0.0000075	0.0000181	57.8
Standard deviation	0.00000	0.000005	0.00014	0.00012	0.0084	0.0087	-	-	-	-	0.003	0.005	0.0000012	0.0000065	4.8
Standard error	0.00000	0.000002	0.00007	0.00006	0.0042	0.0043	-	-	-	-	0.002	0.003	0.0000006	0.0000033	2.4
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	0	0	0	0	4	4	4	4	0	0	2	2	0
Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	50.0	50.0	0.0

Notes:

125	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
3	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.7 (Cont'd.)

			Metals													
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
		Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00056	-	0.00101	-	-	-	-	0.003859	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00605	-	0.350	1.000	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**															
SP27	2025-04-06 15:05:00	VA25A7989-009	44.1	0.00025	0.00025	0.00005	0.00013	0.00162	0.00218	0.014	0.179	0.000025	0.000068	0.0035	0.0035	1.16	1.14
SP27	2025-05-06 10:20:00	VA25B0742-010	50.6	0.00025	0.00025	0.00005	0.00005	0.00163	0.00177	0.005	0.015	0.000025	0.000025	0.0052	0.0055	1.19	1.18
SP27	2025-06-02 14:15:00	VA25B3466-011	56.7	0.00025	0.00025	0.00005	0.00005	0.00141	0.00144	0.005	0.005	0.000025	0.000025	0.0051	0.0056	1.35	1.38
SP27	2025-07-01 10:45:00	VA25B6420-011	63.7	0.00025	0.00025	0.00005	0.00005	0.00129	0.00142	0.005	0.015	0.000025	0.000025	0.0052	0.0053	1.50	1.50
		Minimum	44.1	-	-	-	-	0.00129	0.00142	-	0.005	-	-	0.0035	0.0035	1.16	1.14
		Mean	53.8	-	-	-	-	0.00149	0.00170	-	0.054	-	-	0.0048	0.0050	1.30	1.30
		Median	53.7	-	-	-	-	0.00151	0.00160	-	0.015	-	-	0.0052	0.0054	1.27	1.28
		Maximum	63.7	-	-	-	-	0.00163	0.00218	-	0.179	-	-	0.0052	0.0056	1.50	1.50
		25th percentile	49.0	-	-	-	-	0.00138	0.00144	-	0.012	-	-	0.0047	0.0049	1.18	1.17
		75th percentile	58.5	-	-	-	-	0.00162	0.00187	-	0.056	-	-	0.0052	0.0055	1.39	1.41
		95th percentile	62.7	-	-	-	-	0.00163	0.00212	-	0.154	-	-	0.0052	0.0056	1.48	1.48
		Standard deviation	8.4	-	-	-	-	0.00017	0.00036	-	0.084	-	-	0.0008	0.0010	0.16	0.17
		Standard error	4.2	-	-	-	-	0.00008	0.00018	-	0.042	-	-	0.0004	0.0005	0.08	0.08
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	4	4	4	3	0	0	3	1	4	3	0	0	0	0
		Percentage of non-detects	0.0	100.0	100.0	100.0	75.0	0.0	0.0	75.0	25.0	100.0	75.0	0.0	0.0	0.0	0.0

Notes:

125	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
3	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.7 (Cont'd.)

			Metals													
			Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
	Detection Limit		0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	1.14620	-	0.0012500	-	7.6000	0.00240	-	-	-	-	-	-	0.0020	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	1.89546	-	-	-	46.0000	0.04120	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	0.0160	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	0.0340	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	0.2840	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
SP27	2025-04-06 15:05:00	VA25A7989-009	0.01800	0.03520	0.0000025	0.0000025	0.0108	0.0106	0.00025	0.00025	0.025	0.025	0.663	0.646	0.0677	0.0722	3.42
SP27	2025-05-06 10:20:00	VA25B0742-010	0.00814	0.00958	0.0000025	0.0000025	0.0164	0.0178	0.00025	0.00025	0.025	0.025	0.414	0.375	0.0820	0.0811	4.63
SP27	2025-06-02 14:15:00	VA25B3466-011	0.00346	0.00392	0.0000025	0.0000025	0.0186	0.0194	0.00025	0.00025	0.025	0.025	0.387	0.387	0.0934	0.0994	4.38
SP27	2025-07-01 10:45:00	VA25B6420-011	0.00526	0.00636	0.0000025	0.0000025	0.0178	0.0178	0.00025	0.00025	0.025	0.025	0.370	0.341	0.1100	0.1120	4.03
	Minimum		0.00346	0.00392	-	-	0.0108	0.0106	-	-	-	-	0.370	0.341	0.0677	0.0722	3.42
	Mean		0.00871	0.01377	-	-	0.0159	0.0164	-	-	-	-	0.458	0.437	0.0883	0.0912	4.12
	Median		0.00670	0.00797	-	-	0.0171	0.0178	-	-	-	-	0.400	0.381	0.0877	0.0902	4.20
	Maximum		0.01800	0.03520	-	-	0.0186	0.0194	-	-	-	-	0.663	0.646	0.1100	0.1120	4.63
	25th percentile		0.00481	0.00575	-	-	0.0150	0.0160	-	-	-	-	0.383	0.366	0.0784	0.0789	3.88
	75th percentile		0.01060	0.01598	-	-	0.0180	0.0182	-	-	-	-	0.476	0.452	0.0975	0.1026	4.44
	95th percentile		0.01652	0.03136	-	-	0.0185	0.0192	-	-	-	-	0.626	0.607	0.1075	0.1101	4.59
	Standard deviation		0.00648	0.01448	-	-	0.0035	0.0039	-	-	-	-	0.138	0.141	0.0179	0.0179	0.52
	Standard error		0.00324	0.00724	-	-	0.0018	0.0020	-	-	-	-	0.069	0.070	0.0089	0.0090	0.26
	Sample size		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Number of non-detects		0	0	4	4	0	0	4	4	4	4	0	0	0	0	0
	Percentage of non-detects		0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

125	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
3	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.7 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
SP27 2025-04-06 15:05:00 VA25A7989-009	3.93	0.000005	0.000005	92.5	85.4	0.418	0.398	51.2	54.5	0.000005	0.000005	0.00005	0.00005	0.00015	0.00527
SP27 2025-05-06 10:20:00 VA25B0742-010	4.41	0.000005	0.000005	113.0	121.0	0.456	0.475	68.8	68.2	0.000005	0.000005	0.00005	0.00005	0.00015	0.00031
SP27 2025-06-02 14:15:00 VA25B3466-011	4.52	0.000005	0.000005	122.0	123.0	0.536	0.550	78.4	84.2	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
SP27 2025-07-01 10:45:00 VA25B6420-011	4.41	0.000005	0.000005	126.0	126.0	0.618	0.598	82.8	87.9	0.000005	0.000005	0.00005	0.00005	0.00015	0.00033
Minimum	3.93	-	-	92.5	85.4	0.418	0.398	51.2	54.5	-	-	-	-	-	0.00015
Mean	4.32	-	-	113.4	113.8	0.507	0.505	70.3	73.7	-	-	-	-	-	0.00152
Median	4.41	-	-	117.5	122.0	0.496	0.512	73.6	76.2	-	-	-	-	-	0.00032
Maximum	4.52	-	-	126.0	126.0	0.618	0.598	82.8	87.9	-	-	-	-	-	0.00527
25th percentile	4.29	-	-	107.9	112.1	0.446	0.456	64.4	64.8	-	-	-	-	-	0.00027
75th percentile	4.44	-	-	123.0	123.8	0.556	0.562	79.5	85.1	-	-	-	-	-	0.00156
95th percentile	4.50	-	-	125.4	125.6	0.606	0.591	82.1	87.3	-	-	-	-	-	0.00453
Standard deviation	0.26	-	-	14.9	19.1	0.089	0.088	14.0	15.4	-	-	-	-	-	0.00250
Standard error	0.13	-	-	7.5	9.5	0.044	0.044	7.0	7.7	-	-	-	-	-	0.00125
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	0	0	0	0	0	0	4	4	4	4	4	1
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	25.0

Notes:

125	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
3	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.7 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0177	-	-	-	1.8800	3.00	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0636	-	-	-	11.4000	32.80	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
SP27	2025-04-06 15:05:00	VA25A7989-009	0.000426	0.000437	0.00164	0.00206	0.0005	0.0015	0.0001	0.00033	0.0197	7.49	0.0013	0.0046	0.0102
SP27	2025-05-06 10:20:00	VA25B0742-010	0.000778	0.000749	0.00311	0.00322	0.0005	0.0015	0.0001	0.00010	0.0025	7.40	0.0025	0.0040	0.0084
SP27	2025-06-02 14:15:00	VA25B3466-011	0.000835	0.000858	0.00290	0.00312	0.0005	0.0015	0.0001	0.00010	0.0025	8.62	0.0025	0.0022	0.0097
SP27	2025-07-01 10:45:00	VA25B6420-011	0.000701	0.000728	0.00258	0.00268	0.0005	0.0015	0.0001	0.00010	0.0060	10.00	0.0025	0.0012	0.0047
		Minimum	0.000426	0.000437	0.00164	0.00206	-	-	-	-	0.0025	7.40	-	0.0012	0.0047
		Mean	0.000685	0.000693	0.00256	0.00277	-	-	-	-	0.0077	8.38	-	0.0030	0.0082
		Median	0.000740	0.000738	0.00274	0.00290	-	-	-	-	0.0043	8.05	-	0.0031	0.0090
		Maximum	0.000835	0.000858	0.00311	0.00322	-	-	-	-	0.0197	10.00	-	0.0046	0.0102
		25th percentile	0.000632	0.000655	0.00234	0.00253	-	-	-	-	0.0025	7.47	-	0.0019	0.0075
		75th percentile	0.000792	0.000776	0.00295	0.00315	-	-	-	-	0.0094	8.96	-	0.0042	0.0098
		95th percentile	0.000826	0.000842	0.00308	0.00320	-	-	-	-	0.0176	9.79	-	0.0045	0.0101
		Standard deviation	0.000181	0.000180	0.00065	0.00053	-	-	-	-	0.0082	1.22	-	0.0016	0.0025
		Standard error	0.000091	0.000090	0.00032	0.00026	-	-	-	-	0.0041	0.61	-	0.0008	0.0012
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	0	0	4	4	4	3	2	0	3	0	0
		Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	100.0	100.0	75.0	50.0	0.0	75.0	0.0	0.0

Notes:

125	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
3	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.8 2025 Kemess Water Quality Data – (SP7a).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.25	0.5	0.1	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309	-	0.1995
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.535	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
SP7a	2025-04-06 14:45:00	VA25A7989-008	3.54	740	21.7	19.90	7.96	7.30	130	-	0.91	-	152	149	210	0.0082	0.7130
SP7a	2025-05-06 11:15:00	VA25B0742-008	3.90	753	6.0	2.88	8.03	-	143	-	1.25	-	141	138	198	0.0078	0.1080
SP7a	2025-06-02 14:40:00	VA25B3466-009	4.27	785	1.5	0.69	8.18	-	140	-	1.25	-	142	157	226	0.0072	0.0498
SP7a	2025-07-01 11:05:00	VA25B6420-009	4.54	896	1.5	1.36	8.42	7.48	146	0.125	1.25	0.206	165	184	242	0.0054	0.0479
		Minimum	3.54	740	1.5	0.69	7.96	7.30	130	-	-	0.206	141	138	198	0.0054	0.0479
		Mean	4.06	794	7.7	6.21	8.15	7.39	140	-	-	0.206	150	157	219	0.0072	0.2297
		Median	4.08	769	3.8	2.12	8.11	7.39	142	-	-	0.206	147	153	218	0.0075	0.0789
		Maximum	4.54	896	21.7	19.90	8.42	7.48	146	-	-	0.206	165	184	242	0.0082	0.7130
		25th percentile	3.81	750	1.5	1.19	8.01	7.34	138	-	-	0.206	142	146	207	0.0068	0.0493
		75th percentile	4.34	813	9.9	7.14	8.24	7.44	144	-	-	0.206	155	164	230	0.0079	0.2592
		95th percentile	4.50	879	19.3	17.35	8.38	7.47	146	-	-	0.206	163	180	240	0.0081	0.6222
		Standard deviation	0.44	71	9.6	9.17	0.20	0.13	7	-	-	-	11	20	19	0.0012	0.3234
		Standard error	0.22	35	4.8	4.59	0.10	0.09	3	-	-	-	6	10	10	0.0006	0.1617
		Sample size	4	4	4	4	4	2	4	1	4	1	4	4	4	4	4
		Number of non-detects	0	0	2	0	0	0	0	1	3	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	50.0	0.0	0.0	0.0	0.0	100.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

121 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

13 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.8 (Cont'd.)

			Metals													
			Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
	Detection Limit		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0002720	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0008380	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
SP7a	2025-04-06 14:45:00	VA25A7989-008	0.00005	0.00005	0.00038	0.00070	0.0489	0.0566	0.00001	0.00001	0.000025	0.000025	0.025	0.024	0.0000131	0.0000241	56.8
SP7a	2025-05-06 11:15:00	VA25B0742-008	0.00005	0.00011	0.00055	0.00063	0.0481	0.0479	0.00001	0.00001	0.000025	0.000025	0.028	0.029	0.0000111	0.0000125	52.9
SP7a	2025-06-02 14:40:00	VA25B3466-009	0.00005	0.00005	0.00038	0.00045	0.0467	0.0486	0.00001	0.00001	0.000025	0.000025	0.023	0.029	0.0000075	0.0000050	51.1
SP7a	2025-07-01 11:05:00	VA25B6420-009	0.00005	0.00005	0.00046	0.00043	0.0549	0.0537	0.00001	0.00001	0.000025	0.000025	0.030	0.030	0.0000050	0.0000075	61.3
	Minimum		-	-	0.00038	0.00043	0.0467	0.0479	-	-	-	-	0.023	0.024	0.0000050	0.0000050	51.1
	Mean		-	-	0.00044	0.00055	0.0496	0.0517	-	-	-	-	0.026	0.028	0.0000092	0.0000123	55.5
	Median		-	-	0.00042	0.00054	0.0485	0.0512	-	-	-	-	0.027	0.029	0.0000093	0.0000100	54.8
	Maximum		-	-	0.00055	0.00070	0.0549	0.0566	-	-	-	-	0.030	0.030	0.0000131	0.0000241	61.3
	25th percentile		-	-	0.00038	0.00045	0.0477	0.0484	-	-	-	-	0.024	0.028	0.0000069	0.0000069	52.4
	75th percentile		-	-	0.00048	0.00065	0.0504	0.0544	-	-	-	-	0.028	0.029	0.0000116	0.0000154	57.9
	95th percentile		-	-	0.00054	0.00069	0.0540	0.0562	-	-	-	-	0.030	0.030	0.0000128	0.0000224	60.6
	Standard deviation		-	-	0.00008	0.00013	0.0036	0.0042	-	-	-	-	0.003	0.003	0.0000036	0.0000085	4.5
	Standard error		-	-	0.00004	0.00007	0.0018	0.0021	-	-	-	-	0.002	0.001	0.0000018	0.0000042	2.3
	Sample size		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Number of non-detects		4	3	0	0	0	0	4	4	4	4	0	0	2	2	0
	Percentage of non-detects		100.0	75.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	50.0	50.0	0.0

Notes:

121	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
13	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.8 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00059	-	0.00109	-	-	-	-	0.004337	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00721	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
SP7a 2025-04-06 14:45:00 VA25A7989-008	55.6	0.00025	0.00106	0.00011	0.00058	0.00162	0.00376	0.050	0.958	0.000025	0.000270	0.0025	0.0029	2.48	2.51
SP7a 2025-05-06 11:15:00 VA25B0742-008	51.8	0.00025	0.00025	0.00005	0.00016	0.00180	0.00217	0.016	0.119	0.000025	0.000025	0.0030	0.0033	2.21	2.01
SP7a 2025-06-02 14:40:00 VA25B3466-009	57.2	0.00025	0.00025	0.00005	0.00011	0.00206	0.00216	0.005	0.059	0.000025	0.000025	0.0020	0.0023	3.56	3.36
SP7a 2025-07-01 11:05:00 VA25B6420-009	67.7	0.00025	0.00025	0.00005	0.00012	0.00182	0.00228	0.017	0.051	0.000025	0.000025	0.0030	0.0024	2.88	3.72
Minimum	51.8	-	-	-	0.00011	0.00162	0.00216	0.005	0.051	-	-	0.0020	0.0023	2.21	2.01
Mean	58.1	-	-	-	0.00024	0.00182	0.00259	0.022	0.297	-	-	0.0026	0.0027	2.78	2.90
Median	56.4	-	-	-	0.00014	0.00181	0.00222	0.016	0.089	-	-	0.0027	0.0026	2.68	2.93
Maximum	67.7	-	-	-	0.00058	0.00206	0.00376	0.050	0.958	-	-	0.0030	0.0033	3.56	3.72
25th percentile	54.7	-	-	-	0.00012	0.00176	0.00217	0.013	0.057	-	-	0.0024	0.0024	2.41	2.38
75th percentile	59.8	-	-	-	0.00027	0.00188	0.00265	0.025	0.329	-	-	0.0030	0.0030	3.05	3.45
95th percentile	66.1	-	-	-	0.00052	0.00202	0.00354	0.045	0.832	-	-	0.0030	0.0032	3.46	3.67
Standard deviation	6.8	-	-	-	0.00023	0.00018	0.00078	0.019	0.442	-	-	0.0005	0.0005	0.59	0.78
Standard error	3.4	-	-	-	0.00011	0.00009	0.00039	0.010	0.221	-	-	0.0002	0.0002	0.29	0.39
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	3	3	0	0	0	1	0	4	3	0	0	0	0
Percentage of non-detects	0.0	100.0	75.0	75.0	0.0	0.0	0.0	25.0	0.0	100.0	75.0	0.0	0.0	0.0	0.0

Notes:

121 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

13 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.8 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	1.22540	-	0.0012500	-	7.60000	0.00290	-	-	-	-	-	-	0.0020	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	2.09382	-	-	-	46.00000	0.05140	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
SP7a 2025-04-06 14:45:00 VA25A7989-008	0.05270	0.07400	0.0000025	0.0000025	0.00928	0.00886	0.00025	0.00103	0.025	0.052	0.730	0.749	0.0916	0.0942	3.57
SP7a 2025-05-06 11:15:00 VA25B0742-008	0.02610	0.02750	0.0000025	0.0000025	0.01210	0.01360	0.00025	0.00025	0.025	0.025	0.776	0.644	0.0863	0.0854	4.04
SP7a 2025-06-02 14:40:00 VA25B3466-009	0.00495	0.00671	0.0000025	0.0000025	0.00925	0.01020	0.00025	0.00025	0.025	0.025	0.918	0.936	0.1060	0.1140	3.78
SP7a 2025-07-01 11:05:00 VA25B6420-009	0.00910	0.00816	0.0000025	0.0000025	0.01210	0.01040	0.00025	0.00025	0.025	0.025	0.674	0.736	0.1170	0.1250	3.35
Minimum	0.00495	0.00671	-	-	0.00925	0.00886	-	-	-	-	0.674	0.644	0.0863	0.0854	3.35
Mean	0.02321	0.02909	-	-	0.01068	0.01076	-	-	-	-	0.774	0.766	0.1002	0.1047	3.68
Median	0.01760	0.01783	-	-	0.01069	0.01030	-	-	-	-	0.753	0.742	0.0988	0.1041	3.67
Maximum	0.05270	0.07400	-	-	0.01210	0.01360	-	-	-	-	0.918	0.936	0.1170	0.1250	4.04
25th percentile	0.00806	0.00780	-	-	0.00927	0.00986	-	-	-	-	0.716	0.713	0.0903	0.0920	3.51
75th percentile	0.03275	0.03912	-	-	0.01210	0.01120	-	-	-	-	0.812	0.796	0.1088	0.1168	3.84
95th percentile	0.04871	0.06702	-	-	0.01210	0.01312	-	-	-	-	0.897	0.908	0.1154	0.1234	4.00
Standard deviation	0.02168	0.03140	-	-	0.00164	0.00201	-	-	-	-	0.104	0.122	0.0139	0.0181	0.29
Standard error	0.01084	0.01570	-	-	0.00082	0.00100	-	-	-	-	0.052	0.061	0.0070	0.0090	0.15
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	4	4	0	0	4	3	4	3	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	75.0	100.0	75.0	0.0	0.0	0.0	0.0	0.0

Notes:

121 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

13 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.8 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
SP7a 2025-04-06 14:45:00 VA25A7989-008	4.72	0.000005	0.000005	106	99.3	0.413	0.400	68.2	68.8	0.000005	0.000005	0.00005	0.00005	0.00069	0.03250
SP7a 2025-05-06 11:15:00 VA25B0742-008	4.23	0.000005	0.000005	108	113.0	0.384	0.402	67.8	70.2	0.000005	0.000005	0.00005	0.00005	0.00015	0.00385
SP7a 2025-06-02 14:40:00 VA25B3466-009	3.87	0.000005	0.000005	117	120.0	0.345	0.382	76.2	84.2	0.000005	0.000005	0.00005	0.00005	0.00015	0.00144
SP7a 2025-07-01 11:05:00 VA25B6420-009	3.74	0.000005	0.000005	121	124.0	0.480	0.435	80.9	90.6	0.000005	0.000005	0.00005	0.00005	0.00015	0.00177
Minimum	3.74	-	-	106	99.3	0.345	0.382	67.8	68.8	-	-	-	-	-	0.00144
Mean	4.14	-	-	113	114.1	0.405	0.405	73.3	78.4	-	-	-	-	-	0.00989
Median	4.05	-	-	112	116.5	0.398	0.401	72.2	77.2	-	-	-	-	-	0.00281
Maximum	4.72	-	-	121	124.0	0.480	0.435	80.9	90.6	-	-	-	-	-	0.03250
25th percentile	3.84	-	-	108	109.6	0.374	0.396	68.1	69.9	-	-	-	-	-	0.00169
75th percentile	4.35	-	-	118	121.0	0.430	0.410	77.4	85.8	-	-	-	-	-	0.01101
95th percentile	4.65	-	-	120	123.4	0.470	0.430	80.2	89.6	-	-	-	-	-	0.02820
Standard deviation	0.44	-	-	7	10.8	0.057	0.022	6.4	10.7	-	-	-	-	-	0.01511
Standard error	0.22	-	-	4	5.4	0.028	0.011	3.2	5.3	-	-	-	-	-	0.00756
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	0	0	0	0	0	0	4	4	4	4	3	0
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	75.0	0.0

Notes:

121	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
13	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.8 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0212	-	-	-	1.8500	3.00	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0724	-	-	-	12.7000	32.80	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
SP7a	2025-04-06 14:45:00	VA25A7989-008	0.000437	0.000410	0.00086	0.00301	0.0005	0.0015	0.0001	0.0001	0.0300	11.10	0.0049	0.0005	0.0096
SP7a	2025-05-06 11:15:00	VA25B0742-008	0.000519	0.000589	0.00154	0.00192	0.0005	0.0015	0.0001	0.0001	0.0123	8.64	0.0073	0.0016	0.0092
SP7a	2025-06-02 14:40:00	VA25B3466-009	0.000410	0.000432	0.00104	0.00131	0.0005	0.0015	0.0001	0.0001	0.0062	10.90	0.0025	0.0005	0.0044
SP7a	2025-07-01 11:05:00	VA25B6420-009	0.000462	0.000398	0.00129	0.00118	0.0005	0.0015	0.0001	0.0001	0.0074	10.60	0.0025	0.0005	0.0033
		Minimum	0.000410	0.000398	0.00086	0.00118	-	-	-	-	0.0062	8.64	0.0025	-	0.0033
		Mean	0.000457	0.000457	0.00118	0.00186	-	-	-	-	0.0140	10.31	0.0043	-	0.0066
		Median	0.000450	0.000421	0.00116	0.00162	-	-	-	-	0.0099	10.75	0.0037	-	0.0068
		Maximum	0.000519	0.000589	0.00154	0.00301	-	-	-	-	0.0300	11.10	0.0073	-	0.0096
		25th percentile	0.000430	0.000407	0.00099	0.00128	-	-	-	-	0.0071	10.11	0.0025	-	0.0041
		75th percentile	0.000476	0.000471	0.00135	0.00219	-	-	-	-	0.0167	10.95	0.0055	-	0.0093
		95th percentile	0.000510	0.000565	0.00150	0.00285	-	-	-	-	0.0273	11.07	0.0069	-	0.0095
		Standard deviation	0.000046	0.000089	0.00030	0.00083	-	-	-	-	0.0110	1.13	0.0023	-	0.0032
		Standard error	0.000023	0.000044	0.00015	0.00042	-	-	-	-	0.0055	0.57	0.0011	-	0.0016
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	0	0	4	4	4	4	0	0	2	3	0
		Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	50.0	75.0	0.0

Notes:

121	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
13	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.9 2025 Kemess Water Quality Data – (SP8).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.25	2.5	0.1	0.6	0.6	1.5	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	429	-	0.2245
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.59	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
SP8	2025-05-06 16:15:00	VA25B0742-009	3.62	703	5.2	0.73	8.18	-	206	-	1.25	-	186	186	148	0.0090	0.0200
SP8	2025-06-02 10:55:00	VA25B3466-010	4.03	704	1.5	0.32	8.27	-	209	-	1.25	-	196	204	166	0.0051	0.0222
SP8	2025-07-01 08:20:00	VA25B6420-010	4.59	698	1.5	0.28	8.51	7.12	204	0.125	1.25	0.15	191	206	142	0.0056	0.0099
		Minimum	3.62	698	-	0.28	8.18	7.12	204	-	-	0.15	186	186	142	0.0051	0.0099
		Mean	4.08	702	-	0.44	8.32	7.12	206	-	-	0.15	191	199	152	0.0066	0.0174
		Median	4.03	703	-	0.32	8.27	7.12	206	-	-	0.15	191	204	148	0.0056	0.0200
		Maximum	4.59	704	-	0.73	8.51	7.12	209	-	-	0.15	196	206	166	0.0090	0.0222
		25th percentile	3.83	700	-	0.30	8.22	7.12	205	-	-	0.15	188	195	145	0.0054	0.0150
		75th percentile	4.31	704	-	0.52	8.39	7.12	208	-	-	0.15	194	205	157	0.0073	0.0211
		95th percentile	4.53	704	-	0.69	8.49	7.12	209	-	-	0.15	196	206	164	0.0087	0.0220
		Standard deviation	0.49	3	-	0.25	0.17	-	3	-	-	-	5	11	12	0.0021	0.0066
		Standard error	0.28	2	-	0.14	0.10	-	1	-	-	-	3	6	7	0.0012	0.0038
		Sample size	3	3	3	3	3	1	3	1	3	1	3	3	3	3	3
		Number of non-detects	0	0	2	0	0	0	0	1	3	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	66.7	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

103	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.9 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0003340	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0011150	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
SP8 2025-05-06 16:15:00 VA25B0742-009	0.00023	0.00026	0.00078	0.00078	0.0602	0.0586	0.00001	0.00001	0.000025	0.000025	0.022	0.024	0.0000057	0.0000061	65.3
SP8 2025-06-02 10:55:00 VA25B3466-010	0.00026	0.00025	0.00048	0.00052	0.0642	0.0652	0.00001	0.00001	0.000025	0.000025	0.022	0.025	0.0000050	0.0000050	68.4
SP8 2025-07-01 08:20:00 VA25B6420-010	0.00024	0.00025	0.00040	0.00044	0.0610	0.0594	0.00001	0.00001	0.000025	0.000025	0.022	0.023	0.0000025	0.0000050	67.0
Minimum	0.00023	0.000250	0.00040	0.00044	0.0602	0.0586	-	-	-	-	0.022	0.023	-	-	65.3
Mean	0.00024	0.000250	0.00055	0.00058	0.0618	0.0611	-	-	-	-	0.022	0.024	-	-	66.9
Median	0.00024	0.000250	0.00048	0.00052	0.0610	0.0594	-	-	-	-	0.022	0.024	-	-	67.0
Maximum	0.00026	0.000260	0.00078	0.00078	0.0642	0.0652	-	-	-	-	0.022	0.025	-	-	68.4
25th percentile	0.00024	0.000250	0.00044	0.00048	0.0606	0.0590	-	-	-	-	0.022	0.024	-	-	66.2
75th percentile	0.00025	0.000260	0.00063	0.00065	0.0626	0.0623	-	-	-	-	0.022	0.024	-	-	67.7
95th percentile	0.00026	0.000260	0.00075	0.00075	0.0639	0.0646	-	-	-	-	0.022	0.025	-	-	68.3
Standard deviation	0.00002	0.000010	0.00020	0.00018	0.0021	0.0036	-	-	-	-	0.000	0.001	-	-	1.6
Standard error	0.00001	0.000003	0.00012	0.00010	0.0012	0.0021	-	-	-	-	0.000	0.001	-	-	0.9
Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Number of non-detects	0	0	0	0	0	0	3	3	3	3	0	0	2	2	0
Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	66.7	66.7	0.0

Notes:

103	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.9 (Cont'd.)

			Metals													
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
		Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00066	-	0.00114	-	-	-	-	0.004581	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00692	-	0.350	1.000	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
SP8	2025-05-06 16:15:00	VA25B0742-009	65.6	0.00025	0.00025	0.00005	0.00005	0.00240	0.00246	0.005	0.017	0.000025	0.000025	0.0050	0.0051	5.70	5.38
SP8	2025-06-02 10:55:00	VA25B3466-010	71.9	0.00025	0.00025	0.00005	0.00005	0.00199	0.00207	0.005	0.019	0.000025	0.000025	0.0047	0.0051	6.17	5.86
SP8	2025-07-01 08:20:00	VA25B6420-010	72.1	0.00025	0.00025	0.00005	0.00005	0.00202	0.00216	0.005	0.005	0.000025	0.000025	0.0042	0.0040	5.74	6.26
		Minimum	65.6	-	-	-	-	0.00199	0.00207	-	0.005	-	-	0.0042	0.0040	5.70	5.38
		Mean	69.9	-	-	-	-	0.00214	0.00223	-	0.014	-	-	0.0046	0.0047	5.87	5.83
		Median	71.9	-	-	-	-	0.00202	0.00216	-	0.017	-	-	0.0047	0.0051	5.74	5.86
		Maximum	72.1	-	-	-	-	0.00240	0.00246	-	0.019	-	-	0.0050	0.0051	6.17	6.26
		25th percentile	68.8	-	-	-	-	0.00200	0.00211	-	0.011	-	-	0.0044	0.0046	5.72	5.62
		75th percentile	72.0	-	-	-	-	0.00221	0.00231	-	0.018	-	-	0.0049	0.0051	5.96	6.06
		95th percentile	72.1	-	-	-	-	0.00236	0.00243	-	0.019	-	-	0.0050	0.0051	6.13	6.22
		Standard deviation	3.7	-	-	-	-	0.00023	0.00020	-	0.008	-	-	0.0004	0.0006	0.26	0.44
		Standard error	2.1	-	-	-	-	0.00013	0.00012	-	0.004	-	-	0.0002	0.0004	0.15	0.25
		Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		Number of non-detects	0	3	3	3	3	0	0	3	1	3	3	0	0	0	0
		Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	33.3	100.0	100.0	0.0	0.0	0.0	0.0

Notes:

103	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.9 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	1.42340	-	0.0012500	-	7.6000	0.00330	-	-	-	-	-	-	0.0020	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	2.58972	-	-	-	46.0000	0.05810	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.0160	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.0340	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.2840	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
SP8 2025-05-06 16:15:00 VA25B0742-009	0.00060	0.00070	0.0000025	0.0000025	0.0112	0.0121	0.00025	0.00025	0.025	0.025	0.667	0.599	0.0774	0.0753	4.11
SP8 2025-06-02 10:55:00 VA25B3466-010	0.00005	0.00045	0.0000025	0.0000025	0.0123	0.0124	0.00025	0.00025	0.025	0.025	0.528	0.552	0.0758	0.0792	3.93
SP8 2025-07-01 08:20:00 VA25B6420-010	0.00021	0.00022	0.0000025	0.0000025	0.0097	0.0100	0.00025	0.00025	0.025	0.025	0.434	0.385	0.0599	0.0601	3.67
Minimum	0.00005	0.00022	-	-	0.0097	0.0100	-	-	-	-	0.434	0.385	0.0599	0.0601	3.67
Mean	0.00029	0.00046	-	-	0.0111	0.0115	-	-	-	-	0.543	0.512	0.0710	0.0715	3.90
Median	0.00021	0.00045	-	-	0.0112	0.0121	-	-	-	-	0.528	0.552	0.0758	0.0753	3.93
Maximum	0.00060	0.00070	-	-	0.0123	0.0124	-	-	-	-	0.667	0.599	0.0774	0.0792	4.11
25th percentile	0.00013	0.00034	-	-	0.0105	0.0111	-	-	-	-	0.481	0.469	0.0679	0.0677	3.80
75th percentile	0.00040	0.00058	-	-	0.0118	0.0122	-	-	-	-	0.598	0.576	0.0766	0.0773	4.02
95th percentile	0.00056	0.00067	-	-	0.0122	0.0124	-	-	-	-	0.653	0.594	0.0772	0.0788	4.09
Standard deviation	0.00028	0.00024	-	-	0.0013	0.0013	-	-	-	-	0.117	0.112	0.0097	0.0101	0.22
Standard error	0.00016	0.00014	-	-	0.0008	0.0008	-	-	-	-	0.068	0.065	0.0056	0.0058	0.13
Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Number of non-detects	1	0	3	3	0	0	3	3	3	3	0	0	0	0	0
Percentage of non-detects	33.3	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

103	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.9 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
		Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**															
SP8	2025-05-06 16:15:00	VA25B0742-009	3.97	0.000005	0.000005	82.1	87.2	0.656	0.664	50.4	50.8	0.000005	0.000005	0.00005	0.00005	0.00015	0.00042
SP8	2025-06-02 10:55:00	VA25B3466-010	3.85	0.000005	0.000005	83.4	85.7	0.741	0.777	56.2	60.7	0.000005	0.000005	0.00005	0.00005	0.00015	0.00101
SP8	2025-07-01 08:20:00	VA25B6420-010	4.10	0.000005	0.000005	75.6	77.6	0.759	0.761	49.6	54.5	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
		Minimum	3.85	-	-	75.6	77.6	0.656	0.664	49.6	50.8	-	-	-	-	-	0.00015
		Mean	3.97	-	-	80.4	83.5	0.719	0.734	52.1	55.3	-	-	-	-	-	0.00053
		Median	3.97	-	-	82.1	85.7	0.741	0.761	50.4	54.5	-	-	-	-	-	0.00042
		Maximum	4.10	-	-	83.4	87.2	0.759	0.777	56.2	60.7	-	-	-	-	-	0.00101
		25th percentile	3.91	-	-	78.8	81.7	0.699	0.713	50.0	52.6	-	-	-	-	-	0.00028
		75th percentile	4.04	-	-	82.8	86.4	0.750	0.769	53.3	57.6	-	-	-	-	-	0.00072
		95th percentile	4.09	-	-	83.3	87.0	0.757	0.775	55.6	60.1	-	-	-	-	-	0.00095
		Standard deviation	0.13	-	-	4.2	5.2	0.055	0.061	3.6	5.0	-	-	-	-	-	0.00044
		Standard error	0.07	-	-	2.4	3.0	0.032	0.035	2.1	2.9	-	-	-	-	-	0.00025
		Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		Number of non-detects	0	3	3	0	0	0	0	0	0	3	3	3	3	3	1
		Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	33.3

Notes:

103	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.9 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.025	0.005	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0268	-	-	-	1.8800	3.00	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.01650	-	-	0.0895	-	-	-	13.0000	32.80	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.00750	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
SP8	2025-05-06 16:15:00	VA25B0742-009	0.00138	0.00144	0.00105	0.00113	0.0005	0.0015	0.0001	0.0001	0.0123	5.29	0.0283	0.0026	0.0051
SP8	2025-06-02 10:55:00	VA25B3466-010	0.00140	0.00141	0.00092	0.00103	0.0005	0.0015	0.0001	0.0001	0.0025	3.01	0.0025	0.0005	0.0042
SP8	2025-07-01 08:20:00	VA25B6420-010	0.00115	0.00121	0.00076	0.00085	0.0005	0.0015	0.0001	0.0001	0.0025	2.32	0.0025	0.0005	0.0021
		Minimum	0.00115	0.00121	0.00076	0.00085	-	-	-	-	-	2.32	-	-	0.0021
		Mean	0.00131	0.00135	0.00091	0.00100	-	-	-	-	-	3.54	-	-	0.0038
		Median	0.00138	0.00141	0.00092	0.00103	-	-	-	-	-	3.01	-	-	0.0042
		Maximum	0.00140	0.00144	0.00105	0.00113	-	-	-	-	-	5.29	-	-	0.0051
		25th percentile	0.00126	0.00131	0.00084	0.00094	-	-	-	-	-	2.66	-	-	0.0032
		75th percentile	0.00139	0.00142	0.00098	0.00108	-	-	-	-	-	4.15	-	-	0.0046
		95th percentile	0.00140	0.00144	0.00104	0.00112	-	-	-	-	-	5.06	-	-	0.0050
		Standard deviation	0.00014	0.00013	0.00015	0.00014	-	-	-	-	-	1.55	-	-	0.0015
		Standard error	0.00008	0.00007	0.00008	0.00008	-	-	-	-	-	0.90	-	-	0.0009
		Sample size	3	3	3	3	3	3	3	3	3	3	3	3	3
		Number of non-detects	0	0	0	0	3	3	3	3	2	0	2	2	0
		Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	66.7	0.0	66.7	66.7	0.0

Notes:

103	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.10 2025 Kemess Water Quality Data – (WDD-S1).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.1680
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.969	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code																
WDD-S1	2025-04-06 14:10:00	VA25A7989-001	2.33	129.0	1.5	0.39	7.84	7.62	52.1	-	0.25	-	60.5	62.9	13.30	0.0070	0.0216
WDD-S1	2025-05-06 07:30:00	VA25B0742-001	6.69	120.0	1.5	1.19	7.71	-	41.9	-	0.25	-	57.7	55.8	18.60	0.0241	0.0627
WDD-S1	2025-06-02 13:25:00	VA25B3466-001	7.19	76.8	1.5	0.79	7.68	-	32.2	-	0.25	-	35.8	37.3	7.39	0.0315	0.0600
WDD-S1	2025-07-01 07:30:00	VA25B6420-001	6.81	91.2	1.5	1.27	7.85	7.29	36.2	0.025	0.25	0.034	40.3	41.0	8.29	0.0300	0.0860
		Minimum	2.33	76.8	-	0.39	7.68	7.29	32.2	-	-	0.034	35.8	37.3	7.39	0.0070	0.0216
		Mean	5.76	104.2	-	0.91	7.77	7.46	40.6	-	-	0.034	48.6	49.2	11.89	0.0232	0.0576
		Median	6.75	105.6	-	0.99	7.78	7.46	39.0	-	-	0.034	49.0	48.4	10.80	0.0270	0.0614
		Maximum	7.19	129.0	-	1.27	7.85	7.62	52.1	-	-	0.034	60.5	62.9	18.60	0.0315	0.0860
		25th percentile	5.60	87.6	-	0.69	7.70	7.37	35.2	-	-	0.034	39.2	40.1	8.06	0.0198	0.0504
		75th percentile	6.90	122.2	-	1.21	7.84	7.54	44.4	-	-	0.034	58.4	57.6	14.63	0.0304	0.0685
		95th percentile	7.13	127.6	-	1.26	7.85	7.60	50.6	-	-	0.034	60.1	61.8	17.80	0.0313	0.0825
		Standard deviation	2.29	24.4	-	0.41	0.09	0.23	8.6	-	-	-	12.3	12.1	5.17	0.0112	0.0267
		Standard error	1.15	12.2	-	0.20	0.04	0.17	4.3	-	-	-	6.2	6.1	2.59	0.0056	0.0133
		Sample size	4	4	4	4	4	2	4	1	4	1	4	4	4	4	4
		Number of non-detects	0	0	4	0	0	0	0	1	4	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

161	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.10 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0000990	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002040	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S1 2025-04-06 14:10:00 VA25A7989-001	0.00005	0.00005	0.00012	0.00014	0.0213	0.0208	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	20.5
WDD-S1 2025-05-06 07:30:00 VA25B0742-001	0.00005	0.00005	0.00016	0.00014	0.0252	0.0248	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000066	0.0000068	19.4
WDD-S1 2025-06-02 13:25:00 VA25B3466-001	0.00005	0.00005	0.00016	0.00018	0.0146	0.0151	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000064	12.2
WDD-S1 2025-07-01 07:30:00 VA25B6420-001	0.00005	0.00005	0.00017	0.00022	0.0170	0.0180	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000061	0.0000076	13.8
Minimum	-	-	0.00012	0.00014	0.0146	0.0151	-	-	-	-	-	-	0.0000025	0.0000025	12.2
Mean	-	-	0.00015	0.00017	0.0195	0.0197	-	-	-	-	-	-	0.0000044	0.0000058	16.5
Median	-	-	0.00016	0.00016	0.0192	0.0194	-	-	-	-	-	-	0.0000043	0.0000066	16.6
Maximum	-	-	0.00017	0.00022	0.0252	0.0248	-	-	-	-	-	-	0.0000066	0.0000076	20.5
25th percentile	-	-	0.00015	0.00014	0.0164	0.0173	-	-	-	-	-	-	0.0000025	0.0000054	13.4
75th percentile	-	-	0.00016	0.00019	0.0223	0.0218	-	-	-	-	-	-	0.0000062	0.0000070	19.7
95th percentile	-	-	0.00017	0.00021	0.0246	0.0242	-	-	-	-	-	-	0.0000065	0.0000075	20.3
Standard deviation	-	-	0.00002	0.00004	0.0047	0.0041	-	-	-	-	-	-	0.0000022	0.0000023	4.1
Standard error	-	-	0.00001	0.00002	0.0023	0.0021	-	-	-	-	-	-	0.0000011	0.0000011	2.0
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	4	4	0	0	0	0	4	4	4	4	4	4	2	1	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	50.0	25.0	0.0

Notes:

161	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.10 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.00068	-	-	-	-	0.002872	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00408	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S1 2025-04-06 14:10:00 VA25A7989-001	21.6	0.00025	0.00025	0.00005	0.00005	0.00118	0.00124	0.005	0.024	0.000025	0.000025	0.0005	0.0005	2.26	2.18
WDD-S1 2025-05-06 07:30:00 VA25B0742-001	18.8	0.00025	0.00025	0.00005	0.00005	0.00273	0.00290	0.033	0.062	0.000025	0.000025	0.0005	0.0005	2.24	2.16
WDD-S1 2025-06-02 13:25:00 VA25B3466-001	12.8	0.00025	0.00025	0.00005	0.00005	0.00319	0.00343	0.021	0.051	0.000025	0.000025	0.0005	0.0005	1.30	1.30
WDD-S1 2025-07-01 07:30:00 VA25B6420-001	14.1	0.00025	0.00025	0.00005	0.00005	0.00350	0.00382	0.027	0.071	0.000025	0.000025	0.0005	0.0005	1.42	1.42
Minimum	12.8	-	-	-	-	0.00118	0.00124	0.005	0.024	-	-	-	-	1.30	1.30
Mean	16.8	-	-	-	-	0.00265	0.00285	0.022	0.052	-	-	-	-	1.80	1.77
Median	16.4	-	-	-	-	0.00296	0.00316	0.024	0.056	-	-	-	-	1.83	1.79
Maximum	21.6	-	-	-	-	0.00350	0.00382	0.033	0.071	-	-	-	-	2.26	2.18
25th percentile	13.8	-	-	-	-	0.00234	0.00248	0.017	0.044	-	-	-	-	1.39	1.39
75th percentile	19.5	-	-	-	-	0.00327	0.00353	0.028	0.064	-	-	-	-	2.24	2.16
95th percentile	21.2	-	-	-	-	0.00345	0.00376	0.032	0.070	-	-	-	-	2.26	2.18
Standard deviation	4.1	-	-	-	-	0.00103	0.00114	0.012	0.020	-	-	-	-	0.52	0.47
Standard error	2.0	-	-	-	-	0.00051	0.00057	0.006	0.010	-	-	-	-	0.26	0.24
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	4	4	0	0	1	0	4	4	4	4	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	0.0	0.0	25.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

161	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.10 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.76252	-	0.0012500	-	7.600000	0.00160	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.93452	-	-	-	46.000000	0.02480	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S1 2025-04-06 14:10:00 VA25A7989-001	0.00209	0.00287	0.0000025	0.0000025	0.001740	0.001720	0.00025	0.00025	0.025	0.025	0.191	0.195	0.000057	0.000025	3.87
WDD-S1 2025-05-06 07:30:00 VA25B0742-001	0.00198	0.00317	0.0000025	0.0000025	0.001150	0.001260	0.00025	0.00025	0.025	0.025	0.303	0.274	0.000090	0.000126	3.78
WDD-S1 2025-06-02 13:25:00 VA25B3466-001	0.00068	0.00178	0.0000025	0.0000025	0.000757	0.000809	0.00025	0.00025	0.025	0.025	0.202	0.199	0.000082	0.000053	3.56
WDD-S1 2025-07-01 07:30:00 VA25B6420-001	0.00087	0.00288	0.0000025	0.0000025	0.000868	0.000901	0.00025	0.00025	0.025	0.025	0.162	0.152	0.000068	0.000056	3.56
Minimum	0.00068	0.00178	-	-	0.000757	0.000809	-	-	-	-	0.162	0.152	0.000057	0.000025	3.56
Mean	0.00140	0.00268	-	-	0.001129	0.001172	-	-	-	-	0.214	0.205	0.000074	0.000065	3.69
Median	0.00142	0.00287	-	-	0.001009	0.001081	-	-	-	-	0.196	0.197	0.000075	0.000054	3.67
Maximum	0.00209	0.00317	-	-	0.001740	0.001720	-	-	-	-	0.303	0.274	0.000090	0.000126	3.87
25th percentile	0.00082	0.00260	-	-	0.000840	0.000878	-	-	-	-	0.184	0.184	0.000065	0.000046	3.56
75th percentile	0.00201	0.00295	-	-	0.001298	0.001375	-	-	-	-	0.227	0.218	0.000084	0.000074	3.80
95th percentile	0.00207	0.00313	-	-	0.001651	0.001651	-	-	-	-	0.288	0.263	0.000089	0.000115	3.86
Standard deviation	0.00073	0.00061	-	-	0.000440	0.000414	-	-	-	-	0.061	0.051	0.000015	0.000043	0.16
Standard error	0.00037	0.00031	-	-	0.000220	0.000207	-	-	-	-	0.031	0.025	0.000007	0.000021	0.08
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	4	4	0	0	4	4	4	4	0	0	0	1	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	25.0	0.0

Notes:

161	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.10 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S1 2025-04-06 14:10:00 VA25A7989-001	3.77	0.000005	0.000005	2.47	2.34	0.0698	0.0653	4.09	4.10	0.000005	0.000005	0.00005	0.00048	0.00015	0.00049
WDD-S1 2025-05-06 07:30:00 VA25B0742-001	3.71	0.000005	0.000005	1.74	1.87	0.0619	0.0656	5.84	6.10	0.000005	0.000005	0.00005	0.00005	0.00034	0.00094
WDD-S1 2025-06-02 13:25:00 VA25B3466-001	3.43	0.000005	0.000005	1.22	1.28	0.0394	0.0417	2.49	2.31	0.000005	0.000005	0.00005	0.00005	0.00036	0.00104
WDD-S1 2025-07-01 07:30:00 VA25B6420-001	3.91	0.000005	0.000005	1.40	1.44	0.0505	0.0508	2.63	2.77	0.000005	0.000005	0.00005	0.00005	0.00048	0.00157
Minimum	3.43	-	-	1.22	1.28	0.0394	0.0417	2.49	2.31	-	-	-	-	0.00015	0.00049
Mean	3.70	-	-	1.71	1.73	0.0554	0.0558	3.76	3.82	-	-	-	-	0.00033	0.00101
Median	3.74	-	-	1.57	1.66	0.0562	0.0580	3.36	3.43	-	-	-	-	0.00035	0.00099
Maximum	3.91	-	-	2.47	2.34	0.0698	0.0656	5.84	6.10	-	-	-	-	0.00048	0.00157
25th percentile	3.64	-	-	1.35	1.40	0.0477	0.0485	2.59	2.66	-	-	-	-	0.00029	0.00083
75th percentile	3.81	-	-	1.92	1.99	0.0639	0.0654	4.53	4.60	-	-	-	-	0.00039	0.00117
95th percentile	3.89	-	-	2.36	2.27	0.0686	0.0656	5.58	5.80	-	-	-	-	0.00046	0.00149
Standard deviation	0.20	-	-	0.55	0.48	0.0133	0.0117	1.56	1.70	-	-	-	-	0.00014	0.00044
Standard error	0.10	-	-	0.28	0.24	0.0066	0.0058	0.78	0.85	-	-	-	-	0.00007	0.00022
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	0	0	0	0	0	0	4	4	4	3	1	0
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	75.0	25.0	0.0

Notes:

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4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.10 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0070	-	-	-	1.8800	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0268	-	-	-	10.7000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WDD-S1	2025-04-06 14:10:00	VA25A7989-001	0.000061	0.000061	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0052	0.0416	0.0005	0.0005	0.0044
WDD-S1	2025-05-06 07:30:00	VA25B0742-001	0.000047	0.000051	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0090	0.0858	0.0005	0.0005	0.0179
WDD-S1	2025-06-02 13:25:00	VA25B3466-001	0.000027	0.000028	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0099	0.0005	0.0005	0.0036
WDD-S1	2025-07-01 07:30:00	VA25B6420-001	0.000027	0.000030	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0025	0.0005	0.0005	0.0043
		Minimum	0.000027	0.000028	-	-	-	-	-	-	0.0025	0.0025	-	-	0.0036
		Mean	0.000040	0.000043	-	-	-	-	-	-	0.0048	0.0350	-	-	0.0075
		Median	0.000037	0.000040	-	-	-	-	-	-	0.0039	0.0257	-	-	0.0043
		Maximum	0.000061	0.000061	-	-	-	-	-	-	0.0090	0.0858	-	-	0.0179
		25th percentile	0.000027	0.000030	-	-	-	-	-	-	0.0025	0.0081	-	-	0.0041
		75th percentile	0.000050	0.000054	-	-	-	-	-	-	0.0061	0.0527	-	-	0.0078
		95th percentile	0.000059	0.000059	-	-	-	-	-	-	0.0084	0.0792	-	-	0.0159
		Standard deviation	0.000017	0.000016	-	-	-	-	-	-	0.0031	0.0379	-	-	0.0069
		Standard error	0.000008	0.000008	-	-	-	-	-	-	0.0015	0.0190	-	-	0.0035
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	4	4	4	4	4	4	2	1	4	4	0
		Percentage of non-detects	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	50.0	25.0	100.0	100.0	0.0

Notes:

161	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.11 2025 Kemess Water Quality Data – (WDD-S2).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.1691
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.985	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code																
WDD-S2	2025-04-06 10:05:00	VA25A7989-002	2.18	138.0	1.5	1.53	7.89	7.67	58.7	-	0.25	-	67.2	65.8	12.00	0.0119	0.0482
WDD-S2	2025-05-06 10:40:00	VA25B0742-002	2.45	346.0	5.8	2.22	8.04	-	140.0	-	0.25	-	137.0	132.0	41.80	0.0059	0.1200
WDD-S2	2025-06-02 13:45:00	VA25B3466-002	6.81	82.3	1.5	1.74	7.67	-	36.0	-	0.25	-	37.6	41.0	6.23	0.0398	0.0958
WDD-S2	2025-07-01 10:15:00	VA25B6420-002	6.97	94.3	1.5	1.66	7.90	7.48	38.8	0.025	0.25	0.028	42.0	43.6	7.10	0.0355	0.1110
		Minimum	2.18	82.3	-	1.53	7.67	7.48	36.0	-	-	0.028	37.6	41.0	6.23	0.0059	0.0482
		Mean	4.60	165.2	-	1.79	7.88	7.58	68.4	-	-	0.028	71.0	70.6	16.78	0.0233	0.0938
		Median	4.63	116.2	-	1.70	7.89	7.58	48.8	-	-	0.028	54.6	54.7	9.55	0.0237	0.1034
		Maximum	6.97	346.0	-	2.22	8.04	7.67	140.0	-	-	0.028	137.0	132.0	41.80	0.0398	0.1200
		25th percentile	2.38	91.3	-	1.63	7.83	7.53	38.1	-	-	0.028	40.9	43.0	6.88	0.0104	0.0839
		75th percentile	6.85	190.0	-	1.86	7.94	7.62	79.0	-	-	0.028	84.7	82.3	19.45	0.0366	0.1133
		95th percentile	6.95	314.8	-	2.15	8.02	7.66	127.8	-	-	0.028	126.5	122.1	37.33	0.0392	0.1186
		Standard deviation	2.64	122.9	-	0.30	0.15	0.13	48.8	-	-	-	45.9	42.4	16.87	0.0169	0.0320
		Standard error	1.32	61.5	-	0.15	0.08	0.09	24.4	-	-	-	23.0	21.2	8.44	0.0084	0.0160
		Sample size	4	4	4	4	4	2	4	1	4	1	4	4	4	4	4
		Number of non-detects	0	0	3	0	0	0	0	1	4	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	75.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

151	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.11 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001030	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002150	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S2 2025-04-06 10:05:00 VA25A7989-002	0.00005	0.00005	0.00020	0.00020	0.0148	0.0151	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	24.0
WDD-S2 2025-05-06 10:40:00 VA25B0742-002	0.00028	0.00033	0.00118	0.00145	0.0523	0.0572	0.00001	0.00001	0.000025	0.000025	0.011	0.011	0.0000025	0.0000057	48.1
WDD-S2 2025-06-02 13:45:00 VA25B3466-002	0.00005	0.00005	0.00013	0.00016	0.0138	0.0148	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000064	13.1
WDD-S2 2025-07-01 10:15:00 VA25B6420-002	0.00005	0.00005	0.00020	0.00018	0.0154	0.0160	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000053	0.0000025	14.6
Minimum	-	-	0.00013	0.00016	0.0138	0.0148	-	-	-	-	-	-	-	0.0000025	13.1
Mean	-	-	0.00043	0.00050	0.0241	0.0258	-	-	-	-	-	-	-	0.0000043	25.0
Median	-	-	0.00020	0.00019	0.0151	0.0156	-	-	-	-	-	-	-	0.0000041	19.3
Maximum	-	-	0.00118	0.00145	0.0523	0.0572	-	-	-	-	-	-	-	0.0000064	48.1
25th percentile	-	-	0.00018	0.00017	0.0146	0.0150	-	-	-	-	-	-	-	0.0000025	14.2
75th percentile	-	-	0.00045	0.00051	0.0246	0.0263	-	-	-	-	-	-	-	0.0000059	30.0
95th percentile	-	-	0.00103	0.00126	0.0468	0.0510	-	-	-	-	-	-	-	0.0000063	44.5
Standard deviation	-	-	0.00050	0.00064	0.0188	0.0210	-	-	-	-	-	-	-	0.0000021	16.2
Standard error	-	-	0.00025	0.00032	0.0094	0.0105	-	-	-	-	-	-	-	0.0000010	8.1
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	3	3	0	0	0	0	4	4	4	4	3	3	3	2	0
Percentage of non-detects	75.0	75.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	75.0	75.0	75.0	50.0	0.0

Notes:

151	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.11 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.00068	-	-	-	-	0.002838	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00404	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code														
WDD-S2	2025-04-06 10:05:00	VA25A7989-002	23.6	0.00025	0.00025	0.00005	0.00005	0.00117	0.00134	0.013	0.048	0.000025	0.000025	0.0005	0.0005	1.77	1.67
WDD-S2	2025-05-06 10:40:00	VA25B0742-002	46.0	0.00025	0.00025	0.00005	0.00005	0.00172	0.00234	0.011	0.142	0.000025	0.000025	0.0013	0.0014	4.08	4.11
WDD-S2	2025-06-02 13:45:00	VA25B3466-002	14.4	0.00025	0.00025	0.00005	0.00005	0.00274	0.00303	0.024	0.077	0.000025	0.000025	0.0005	0.0005	1.20	1.22
WDD-S2	2025-07-01 10:15:00	VA25B6420-002	15.2	0.00025	0.00025	0.00005	0.00005	0.00286	0.00323	0.028	0.096	0.000025	0.000025	0.0005	0.0005	1.34	1.37
Minimum			14.4	-	-	-	-	0.00117	0.00134	0.011	0.048	-	-	-	-	1.20	1.22
Mean			24.8	-	-	-	-	0.00212	0.00249	0.019	0.091	-	-	-	-	2.10	2.09
Median			19.4	-	-	-	-	0.00223	0.00268	0.018	0.086	-	-	-	-	1.56	1.52
Maximum			46.0	-	-	-	-	0.00286	0.00323	0.028	0.142	-	-	-	-	4.08	4.11
25th percentile			15.0	-	-	-	-	0.00158	0.00209	0.013	0.070	-	-	-	-	1.31	1.33
75th percentile			29.2	-	-	-	-	0.00277	0.00308	0.025	0.108	-	-	-	-	2.35	2.28
95th percentile			42.6	-	-	-	-	0.00284	0.00320	0.027	0.135	-	-	-	-	3.73	3.74
Standard deviation			14.7	-	-	-	-	0.00082	0.00085	0.008	0.039	-	-	-	-	1.34	1.36
Standard error			7.4	-	-	-	-	0.00041	0.00043	0.004	0.020	-	-	-	-	0.67	0.68
Sample size			4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects			0	4	4	4	4	0	0	0	0	4	4	3	3	0	0
Percentage of non-detects			0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	75.0	75.0	0.0	0.0

Notes:

151	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.11 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.77044	-	0.0012500	-	7.600000	0.00160	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.95435	-	-	-	46.000000	0.02480	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S2 2025-04-06 10:05:00 VA25A7989-002	0.00098	0.00195	0.0000025	0.0000025	0.000557	0.000585	0.00025	0.00025	0.025	0.025	0.139	0.150	0.000232	0.000247	3.54
WDD-S2 2025-05-06 10:40:00 VA25B0742-002	0.00702	0.02990	0.0000025	0.0000025	0.003540	0.003760	0.00025	0.00025	0.025	0.025	0.625	0.608	0.003440	0.003490	2.94
WDD-S2 2025-06-02 13:45:00 VA25B3466-002	0.00098	0.00209	0.0000025	0.0000025	0.000615	0.000616	0.00025	0.00025	0.025	0.025	0.173	0.175	0.000098	0.000086	3.51
WDD-S2 2025-07-01 10:15:00 VA25B6420-002	0.00090	0.00290	0.0000025	0.0000025	0.000689	0.000691	0.00025	0.00025	0.025	0.025	0.145	0.140	0.000110	0.000095	3.42
Minimum	0.00090	0.00195	-	-	0.000557	0.000585	-	-	-	-	0.139	0.140	0.000098	0.000086	2.94
Mean	0.00247	0.00921	-	-	0.001350	0.001413	-	-	-	-	0.270	0.268	0.000970	0.000979	3.35
Median	0.00098	0.00249	-	-	0.000652	0.000654	-	-	-	-	0.159	0.162	0.000171	0.000171	3.46
Maximum	0.00702	0.02990	-	-	0.003540	0.003760	-	-	-	-	0.625	0.608	0.003440	0.003490	3.54
25th percentile	0.00096	0.00205	-	-	0.000600	0.000608	-	-	-	-	0.144	0.148	0.000107	0.000093	3.30
75th percentile	0.00249	0.00965	-	-	0.001402	0.001458	-	-	-	-	0.286	0.283	0.001034	0.001058	3.52
95th percentile	0.00611	0.02585	-	-	0.003112	0.003300	-	-	-	-	0.557	0.543	0.002959	0.003004	3.54
Standard deviation	0.00303	0.01380	-	-	0.001461	0.001565	-	-	-	-	0.237	0.227	0.001648	0.001675	0.28
Standard error	0.00152	0.00690	-	-	0.000730	0.000783	-	-	-	-	0.118	0.113	0.000824	0.000838	0.14
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	4	4	0	0	4	4	4	4	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

151	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.11 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S2 2025-04-06 10:05:00 VA25A7989-002	3.70	0.000005	0.000005	2.19	2.00	0.0560	0.0552	3.64	4.01	0.000005	0.000005	0.00005	0.00005	0.00040	0.00110
WDD-S2 2025-05-06 10:40:00 VA25B0742-002	3.02	0.000005	0.000005	23.00	25.20	0.3160	0.3230	14.10	14.00	0.000005	0.000005	0.00005	0.00005	0.00015	0.00242
WDD-S2 2025-06-02 13:45:00 VA25B3466-002	3.48	0.000005	0.000005	1.17	1.24	0.0372	0.0390	1.83	2.01	0.000005	0.000005	0.00005	0.00005	0.00060	0.00183
WDD-S2 2025-07-01 10:15:00 VA25B6420-002	3.96	0.000005	0.000005	1.39	1.39	0.0468	0.0446	2.20	2.29	0.000005	0.000005	0.00005	0.00005	0.00077	0.00223
Minimum	3.02	-	-	1.17	1.24	0.0372	0.0390	1.83	2.01	-	-	-	-	0.00015	0.00110
Mean	3.54	-	-	6.94	7.46	0.1140	0.1154	5.44	5.58	-	-	-	-	0.00048	0.00190
Median	3.59	-	-	1.79	1.69	0.0514	0.0499	2.92	3.15	-	-	-	-	0.00050	0.00203
Maximum	3.96	-	-	23.00	25.20	0.3160	0.3230	14.10	14.00	-	-	-	-	0.00077	0.00242
25th percentile	3.36	-	-	1.33	1.35	0.0444	0.0432	2.11	2.22	-	-	-	-	0.00034	0.00165
75th percentile	3.77	-	-	7.39	7.80	0.1210	0.1222	6.26	6.51	-	-	-	-	0.00064	0.00228
95th percentile	3.92	-	-	19.88	21.72	0.2770	0.2828	12.53	12.50	-	-	-	-	0.00074	0.00239
Standard deviation	0.40	-	-	10.72	11.83	0.1349	0.1385	5.82	5.68	-	-	-	-	0.00027	0.00058
Standard error	0.20	-	-	5.36	5.92	0.0674	0.0693	2.91	2.84	-	-	-	-	0.00013	0.00029
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	0	0	0	0	0	0	4	4	4	4	1	0
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	25.0	0.0

Notes:

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5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
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0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.11 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0072	-	-	-	1.8700	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0275	-	-	-	10.7000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WDD-S2	2025-04-06 10:05:00	VA25A7989-002	0.000036	0.000034	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0432	0.0005	0.0005	0.0041
WDD-S2	2025-05-06 10:40:00	VA25B0742-002	0.000522	0.000518	0.00072	0.00114	0.0005	0.0015	0.0001	0.0001	0.0025	0.3690	0.0011	0.0017	0.0061
WDD-S2	2025-06-02 13:45:00	VA25B3466-002	0.000022	0.000024	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0185	0.0025	0.0005	0.0005	0.0079
WDD-S2	2025-07-01 10:15:00	VA25B6420-002	0.000022	0.000026	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0095	0.0025	0.0016	0.0005	0.0023
		Minimum	0.000022	0.000024	-	-	-	-	-	-	0.0025	0.0025	0.0005	-	0.0023
		Mean	0.000150	0.000150	-	-	-	-	-	-	0.0082	0.1043	0.0009	-	0.0051
		Median	0.000029	0.000030	-	-	-	-	-	-	0.0060	0.0229	0.0008	-	0.0051
		Maximum	0.000522	0.000518	-	-	-	-	-	-	0.0185	0.3690	0.0016	-	0.0079
		25th percentile	0.000022	0.000026	-	-	-	-	-	-	0.0025	0.0025	0.0005	-	0.0037
		75th percentile	0.000158	0.000155	-	-	-	-	-	-	0.0118	0.1246	0.0012	-	0.0066
		95th percentile	0.000449	0.000445	-	-	-	-	-	-	0.0171	0.3201	0.0015	-	0.0076
		Standard deviation	0.000248	0.000245	-	-	-	-	-	-	0.0076	0.1775	0.0005	-	0.0024
		Standard error	0.000124	0.000123	-	-	-	-	-	-	0.0038	0.0888	0.0003	-	0.0012
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	3	3	4	4	4	4	2	2	2	3	0
		Percentage of non-detects	0.0	0.0	75.0	75.0	100.0	100.0	100.0	100.0	50.0	50.0	50.0	75.0	0.0

Notes:

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5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.12 2025 Kemess Water Quality Data – (WDD-S3).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.1345
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.015	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WDD-S3	2025-04-06 10:30:00	VA25A7989-003	1.75	362.0	1.5	1.66	7.68	7.49	66.7	-	0.25	-	105.0	101.0	112.00	0.0036	0.0227
WDD-S3	2025-05-06 08:05:00	VA25B0742-003	7.03	132.0	1.5	3.17	7.71	-	45.8	-	0.25	-	57.6	58.8	20.00	0.0664	0.1800
WDD-S3	2025-06-02 14:00:00	VA25B3466-003	7.17	85.0	1.5	1.58	7.65	-	37.3	-	0.25	-	32.9	42.4	7.50	0.0456	0.0949
WDD-S3	2025-07-01 10:30:00	VA25B6420-003	7.50	99.4	1.5	2.12	7.89	7.47	39.7	0.025	0.25	0.034	45.2	45.2	8.54	0.0351	0.1230
		Minimum	1.75	85.0	-	1.58	7.65	7.47	37.3	-	-	0.034	32.9	42.4	7.50	0.0036	0.0227
		Mean	5.86	169.6	-	2.13	7.73	7.48	47.4	-	-	0.034	60.2	61.9	37.01	0.0377	0.1051
		Median	7.10	115.7	-	1.89	7.70	7.48	42.8	-	-	0.034	51.4	52.0	14.27	0.0403	0.1089
		Maximum	7.50	362.0	-	3.17	7.89	7.49	66.7	-	-	0.034	105.0	101.0	112.00	0.0664	0.1800
		25th percentile	5.71	95.8	-	1.64	7.67	7.47	39.1	-	-	0.034	42.1	44.5	8.28	0.0272	0.0769
		75th percentile	7.25	189.5	-	2.38	7.76	7.48	51.0	-	-	0.034	69.4	69.3	43.00	0.0508	0.1372
		95th percentile	7.45	327.5	-	3.01	7.86	7.49	63.6	-	-	0.034	97.9	94.7	98.20	0.0633	0.1714
		Standard deviation	2.75	129.8	-	0.73	0.11	0.01	13.4	-	-	-	31.5	27.1	50.31	0.0262	0.0654
		Standard error	1.37	64.9	-	0.37	0.05	0.01	6.7	-	-	-	15.8	13.5	25.16	0.0131	0.0327
		Sample size	4	4	4	4	4	2	4	1	4	1	4	4	4	4	4
		Number of non-detects	0	0	4	0	0	0	0	1	4	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

138	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
8	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.12 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0000930	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0001870	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S3 2025-04-06 10:30:00 VA25A7989-003	0.00005	0.00005	0.00013	0.00019	0.0217	0.0216	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0006020	0.0006000	38.0
WDD-S3 2025-05-06 08:05:00 VA25B0742-003	0.00005	0.00005	0.00028	0.00030	0.0155	0.0167	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000561	0.0000551	20.4
WDD-S3 2025-06-02 14:00:00 VA25B3466-003	0.00005	0.00005	0.00018	0.00023	0.0141	0.0147	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000142	0.0000138	11.1
WDD-S3 2025-07-01 10:30:00 VA25B6420-003	0.00005	0.00005	0.00020	0.00027	0.0144	0.0159	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000178	0.0000149	15.9
Minimum	-	-	0.00013	0.00019	0.0141	0.0147	-	-	-	-	-	-	0.0000142	0.0000138	11.1
Mean	-	-	0.00020	0.00025	0.0164	0.0172	-	-	-	-	-	-	0.0001725	0.0001709	21.4
Median	-	-	0.00019	0.00025	0.0150	0.0163	-	-	-	-	-	-	0.0000370	0.0000350	18.1
Maximum	-	-	0.00028	0.00030	0.0217	0.0216	-	-	-	-	-	-	0.0006020	0.0006000	38.0
25th percentile	-	-	0.00017	0.00022	0.0143	0.0156	-	-	-	-	-	-	0.0000169	0.0000146	14.7
75th percentile	-	-	0.00022	0.00028	0.0170	0.0179	-	-	-	-	-	-	0.0001926	0.0001913	24.8
95th percentile	-	-	0.00027	0.00030	0.0208	0.0209	-	-	-	-	-	-	0.0005201	0.0005183	35.4
Standard deviation	-	-	0.00006	0.00005	0.0036	0.0030	-	-	-	-	-	-	0.0002869	0.0002867	11.7
Standard error	-	-	0.00003	0.00002	0.0018	0.0015	-	-	-	-	-	-	0.0001435	0.0001433	5.9
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	4	4	0	0	0	0	4	4	4	4	4	4	0	0	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0

Notes:

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8	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
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0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.12 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.00047	-	-	-	-	0.002789	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00281	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S3 2025-04-06 10:30:00 VA25A7989-003	36.6	0.00025	0.00025	0.00154	0.00160	0.00088	0.00102	0.329	0.446	0.000025	0.000025	0.0005	0.0005	2.56	2.27
WDD-S3 2025-05-06 08:05:00 VA25B0742-003	20.8	0.00025	0.00025	0.00030	0.00034	0.00286	0.00344	0.176	0.289	0.000025	0.000084	0.0005	0.0005	1.63	1.66
WDD-S3 2025-06-02 14:00:00 VA25B3466-003	14.9	0.00025	0.00025	0.00005	0.00011	0.00283	0.00314	0.053	0.119	0.000025	0.000025	0.0005	0.0005	1.25	1.26
WDD-S3 2025-07-01 10:30:00 VA25B6420-003	15.8	0.00025	0.00025	0.00005	0.00012	0.00278	0.00334	0.059	0.145	0.000025	0.000058	0.0005	0.0005	1.33	1.41
Minimum	14.9	-	-	0.00005	0.00011	0.00088	0.00102	0.053	0.119	-	0.000025	-	-	1.25	1.26
Mean	22.0	-	-	0.00048	0.00054	0.00234	0.00274	0.154	0.250	-	0.000048	-	-	1.69	1.65
Median	18.3	-	-	0.00017	0.00023	0.00281	0.00324	0.117	0.217	-	0.000042	-	-	1.48	1.53
Maximum	36.6	-	-	0.00154	0.00160	0.00286	0.00344	0.329	0.446	-	0.000084	-	-	2.56	2.27
25th percentile	15.6	-	-	0.00005	0.00012	0.00231	0.00261	0.057	0.138	-	0.000025	-	-	1.31	1.37
75th percentile	24.8	-	-	0.00061	0.00066	0.00284	0.00337	0.214	0.328	-	0.000064	-	-	1.86	1.81
95th percentile	34.2	-	-	0.00135	0.00141	0.00286	0.00343	0.306	0.422	-	0.000080	-	-	2.42	2.18
Standard deviation	10.1	-	-	0.00071	0.00071	0.00097	0.00115	0.130	0.151	-	0.000029	-	-	0.60	0.45
Standard error	5.0	-	-	0.00036	0.00036	0.00049	0.00058	0.065	0.075	-	0.000014	-	-	0.30	0.22
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	2	0	0	0	0	0	4	2	4	4	0	0
Percentage of non-detects	0.0	100.0	100.0	50.0	0.0	0.0	0.0	0.0	0.0	100.0	50.0	100.0	100.0	0.0	0.0

Notes:

138 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

8 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.12 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.74976	-	0.0012500	-	7.600000	0.00180	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.90256	-	-	-	46.000000	0.02620	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S3 2025-04-06 10:30:00 VA25A7989-003	0.15000	0.14200	0.0000025	0.0000025	0.000310	0.000329	0.00887	0.00878	0.025	0.025	0.416	0.405	0.001890	0.001840	4.01
WDD-S3 2025-05-06 08:05:00 VA25B0742-003	0.02320	0.02620	0.0000025	0.0000025	0.000561	0.000586	0.00085	0.00100	0.025	0.025	0.251	0.242	0.000351	0.000318	3.66
WDD-S3 2025-06-02 14:00:00 VA25B3466-003	0.00487	0.00633	0.0000025	0.0000025	0.000490	0.000645	0.00025	0.00025	0.025	0.025	0.181	0.180	0.000130	0.000116	3.40
WDD-S3 2025-07-01 10:30:00 VA25B6420-003	0.00565	0.00877	0.0000025	0.0000025	0.000702	0.000699	0.00025	0.00025	0.025	0.025	0.145	0.153	0.000138	0.000125	3.45
Minimum	0.00487	0.00633	-	-	0.000310	0.000329	0.00025	0.00025	-	-	0.145	0.153	0.000130	0.000116	3.40
Mean	0.04593	0.04582	-	-	0.000516	0.000565	0.00255	0.00257	-	-	0.248	0.245	0.000627	0.000600	3.63
Median	0.01442	0.01749	-	-	0.000525	0.000615	0.00055	0.00062	-	-	0.216	0.211	0.000245	0.000221	3.56
Maximum	0.15000	0.14200	-	-	0.000702	0.000699	0.00887	0.00878	-	-	0.416	0.405	0.001890	0.001840	4.01
25th percentile	0.00546	0.00816	-	-	0.000445	0.000522	0.00025	0.00025	-	-	0.172	0.173	0.000136	0.000123	3.44
75th percentile	0.05490	0.05515	-	-	0.000596	0.000659	0.00285	0.00294	-	-	0.292	0.283	0.000736	0.000698	3.75
95th percentile	0.13098	0.12463	-	-	0.000681	0.000691	0.00767	0.00761	-	-	0.391	0.381	0.001659	0.001612	3.96
Standard deviation	0.06989	0.06472	-	-	0.000163	0.000164	0.00422	0.00416	-	-	0.120	0.113	0.000848	0.000832	0.28
Standard error	0.03495	0.03236	-	-	0.000082	0.000082	0.00211	0.00208	-	-	0.060	0.056	0.000424	0.000416	0.14
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	4	4	0	0	2	2	4	4	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	50.0	50.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

138	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
8	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.12 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S3 2025-04-06 10:30:00 VA25A7989-003	3.99	0.000005	0.000005	39.00	37.00	0.1140	0.1180	36.00	37.90	0.000005	0.000005	0.00005	0.00005	0.00015	0.00074
WDD-S3 2025-05-06 08:05:00 VA25B0742-003	3.75	0.000005	0.000005	4.30	4.61	0.0568	0.0554	6.36	6.65	0.000005	0.000005	0.00005	0.00005	0.00122	0.00322
WDD-S3 2025-06-02 14:00:00 VA25B3466-003	3.55	0.000005	0.000005	1.65	1.66	0.0315	0.0410	2.16	2.39	0.000005	0.000005	0.00005	0.00005	0.00094	0.00188
WDD-S3 2025-07-01 10:30:00 VA25B6420-003	4.02	0.000005	0.000005	1.82	1.97	0.0480	0.0484	2.59	2.86	0.000005	0.000005	0.00005	0.00005	0.00073	0.00284
Minimum	3.55	-	-	1.65	1.66	0.0315	0.0410	2.16	2.39	-	-	-	-	0.00015	0.00074
Mean	3.83	-	-	11.69	11.31	0.0626	0.0657	11.78	12.45	-	-	-	-	0.00076	0.00217
Median	3.87	-	-	3.06	3.29	0.0524	0.0519	4.47	4.76	-	-	-	-	0.00084	0.00236
Maximum	4.02	-	-	39.00	37.00	0.1140	0.1180	36.00	37.90	-	-	-	-	0.00122	0.00322
25th percentile	3.70	-	-	1.78	1.89	0.0439	0.0466	2.48	2.74	-	-	-	-	0.00058	0.00160
75th percentile	4.00	-	-	12.97	12.71	0.0711	0.0711	13.77	14.46	-	-	-	-	0.00101	0.00294
95th percentile	4.02	-	-	33.79	32.14	0.1054	0.1086	31.55	33.21	-	-	-	-	0.00118	0.00316
Standard deviation	0.22	-	-	18.25	17.18	0.0359	0.0354	16.26	17.07	-	-	-	-	0.00045	0.00111
Standard error	0.11	-	-	9.12	8.59	0.0179	0.0177	8.13	8.54	-	-	-	-	0.00023	0.00055
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	0	0	0	0	0	0	4	4	4	4	1	0
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	25.0	0.0

Notes:

138	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
8	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.12 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0068	-	-	-	1.8700	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0249	-	-	-	12.9000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WDD-S3	2025-04-06 10:30:00	VA25A7989-003	0.000012	0.000012	0.00025	0.00025	0.0192	0.0193	0.0001	0.0001	0.0240	1.3000	0.0026	0.0005	0.0034
WDD-S3	2025-05-06 08:05:00	VA25B0742-003	0.000026	0.000030	0.00025	0.00025	0.0018	0.0015	0.0001	0.0001	0.0074	0.0823	0.0005	0.0005	0.0046
WDD-S3	2025-06-02 14:00:00	VA25B3466-003	0.000019	0.000023	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0122	0.0160	0.0005	0.0005	0.0049
WDD-S3	2025-07-01 10:30:00	VA25B6420-003	0.000023	0.000025	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0074	0.0134	0.0005	0.0005	0.0025
		Minimum	0.000012	0.000012	-	-	0.0005	-	-	-	0.0074	0.0134	-	-	0.0025
		Mean	0.000020	0.000023	-	-	0.0055	-	-	-	0.0128	0.3529	-	-	0.0039
		Median	0.000021	0.000024	-	-	0.0012	-	-	-	0.0098	0.0492	-	-	0.0040
		Maximum	0.000026	0.000030	-	-	0.0192	-	-	-	0.0240	1.3000	-	-	0.0049
		25th percentile	0.000017	0.000020	-	-	0.0005	-	-	-	0.0074	0.0154	-	-	0.0032
		75th percentile	0.000024	0.000026	-	-	0.0061	-	-	-	0.0152	0.3867	-	-	0.0047
		95th percentile	0.000026	0.000029	-	-	0.0166	-	-	-	0.0222	1.1173	-	-	0.0049
		Standard deviation	0.000006	0.000008	-	-	0.0092	-	-	-	0.0078	0.6322	-	-	0.0011
		Standard error	0.000003	0.000004	-	-	0.0046	-	-	-	0.0039	0.3161	-	-	0.0006
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	4	4	2	3	4	4	0	0	3	4	0
		Percentage of non-detects	0.0	0.0	100.0	100.0	50.0	75.0	100.0	100.0	0.0	0.0	75.0	100.0	0.0

Notes:

138 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

8 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.13 2025 Kemess Water Quality Data – (WDD-S4).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.0855
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.031	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code																
WDD-S4	2025-04-06 10:55:00	VA25A7989-004	2.04	294.0	1.5	3.77	7.45	6.74	69.0	-	0.25	-	91.5	94.9	74.80	0.0048	0.0563
WDD-S4	2025-05-06 11:05:00	VA25B0742-004	7.33	145.0	4.0	5.94	7.77	-	47.5	-	0.25	-	58.4	59.3	23.90	0.0575	0.2500
WDD-S4	2025-06-02 14:30:00	VA25B3466-004	6.88	90.4	1.5	1.41	7.65	-	37.5	-	0.25	-	39.8	42.7	8.42	0.0430	0.1020
WDD-S4	2025-07-01 10:55:00	VA25B6420-004	6.39	108.0	4.0	4.40	7.95	7.50	42.2	0.025	0.25	0.034	47.1	47.4	9.90	0.0284	0.1820
		Minimum	2.04	90.4	1.5	1.41	7.45	6.74	37.5	-	-	0.034	39.8	42.7	8.42	0.0048	0.0563
		Mean	5.66	159.3	2.8	3.88	7.70	7.12	49.0	-	-	0.034	59.2	61.1	29.25	0.0334	0.1476
		Median	6.64	126.5	2.8	4.08	7.71	7.12	44.9	-	-	0.034	52.8	53.3	16.90	0.0357	0.1420
		Maximum	7.33	294.0	4.0	5.94	7.95	7.50	69.0	-	-	0.034	91.5	94.9	74.80	0.0575	0.2500
		25th percentile	5.30	103.6	1.5	3.18	7.60	6.93	41.0	-	-	0.034	45.3	46.2	9.53	0.0225	0.0906
		75th percentile	6.99	182.2	4.0	4.78	7.81	7.31	52.9	-	-	0.034	66.7	68.2	36.62	0.0466	0.1990
		95th percentile	7.26	271.6	4.0	5.71	7.92	7.46	65.8	-	-	0.034	86.5	89.6	67.16	0.0553	0.2398
		Standard deviation	2.44	92.6	1.4	1.88	0.21	0.54	13.9	-	-	-	22.9	23.6	31.15	0.0225	0.0858
		Standard error	1.22	46.3	0.7	0.94	0.10	0.38	7.0	-	-	-	11.4	11.8	15.58	0.0112	0.0429
		Sample size	4	4	4	4	4	2	4	1	4	1	4	4	4	4	4
		Number of non-detects	0	0	2	0	0	0	0	1	4	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	50.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

135	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.13 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001070	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002280	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S4 2025-04-06 10:55:00 VA25A7989-004	0.00005	0.00005	0.00015	0.00028	0.0355	0.0364	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000410	0.0000510	31.9
WDD-S4 2025-05-06 11:05:00 VA25B0742-004	0.00005	0.00005	0.00027	0.00036	0.0162	0.0177	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000284	0.0000329	20.7
WDD-S4 2025-06-02 14:30:00 VA25B3466-004	0.00005	0.00005	0.00020	0.00024	0.0139	0.0154	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000141	0.0000142	13.9
WDD-S4 2025-07-01 10:55:00 VA25B6420-004	0.00005	0.00005	0.00022	0.00034	0.0147	0.0168	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000161	0.0000202	16.6
Minimum	-	-	0.00015	0.00024	0.0139	0.0154	-	-	-	-	-	-	0.0000141	0.0000142	13.9
Mean	-	-	0.00021	0.00030	0.0201	0.0216	-	-	-	-	-	-	0.0000249	0.0000296	20.8
Median	-	-	0.00021	0.00031	0.0154	0.0173	-	-	-	-	-	-	0.0000222	0.0000266	18.6
Maximum	-	-	0.00027	0.00036	0.0355	0.0364	-	-	-	-	-	-	0.0000410	0.0000510	31.9
25th percentile	-	-	0.00019	0.00027	0.0145	0.0164	-	-	-	-	-	-	0.0000156	0.0000187	15.9
75th percentile	-	-	0.00023	0.00035	0.0210	0.0224	-	-	-	-	-	-	0.0000316	0.0000374	23.5
95th percentile	-	-	0.00026	0.00036	0.0326	0.0336	-	-	-	-	-	-	0.0000391	0.0000483	30.2
Standard deviation	-	-	0.00005	0.00006	0.0103	0.0099	-	-	-	-	-	-	0.0000125	0.0000163	7.9
Standard error	-	-	0.00002	0.00003	0.0052	0.0050	-	-	-	-	-	-	0.0000062	0.0000081	4.0
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	4	4	0	0	0	0	4	4	4	4	4	4	0	0	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0

Notes:

135	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.13 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.00020	-	-	-	-	0.002931	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00131	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S4 2025-04-06 10:55:00 VA25A7989-004	33.4	0.00025	0.00025	0.00031	0.00036	0.00070	0.00104	0.086	0.421	0.000025	0.000063	0.0005	0.0005	2.87	2.79
WDD-S4 2025-05-06 11:05:00 VA25B0742-004	21.1	0.00025	0.00025	0.00017	0.00024	0.00286	0.00353	0.124	0.346	0.000025	0.000126	0.0005	0.0005	1.63	1.60
WDD-S4 2025-06-02 14:30:00 VA25B3466-004	15.0	0.00025	0.00025	0.00005	0.00005	0.00287	0.00326	0.052	0.121	0.000025	0.000025	0.0005	0.0005	1.23	1.28
WDD-S4 2025-07-01 10:55:00 VA25B6420-004	16.6	0.00025	0.00025	0.00005	0.00016	0.00254	0.00307	0.055	0.217	0.000025	0.000130	0.0005	0.0005	1.37	1.44
Minimum	15.0	-	-	0.00005	0.00005	0.00070	0.00104	0.052	0.121	-	0.000025	-	-	1.23	1.28
Mean	21.5	-	-	0.00015	0.00020	0.00224	0.00272	0.079	0.276	-	0.000086	-	-	1.77	1.78
Median	18.9	-	-	0.00011	0.00020	0.00270	0.00316	0.070	0.281	-	0.000094	-	-	1.50	1.52
Maximum	33.4	-	-	0.00031	0.00036	0.00287	0.00353	0.124	0.421	-	0.000130	-	-	2.87	2.79
25th percentile	16.2	-	-	0.00005	0.00013	0.00208	0.00256	0.054	0.193	-	0.000054	-	-	1.33	1.40
75th percentile	24.2	-	-	0.00020	0.00027	0.00286	0.00333	0.096	0.365	-	0.000127	-	-	1.94	1.90
95th percentile	31.6	-	-	0.00029	0.00034	0.00287	0.00349	0.118	0.410	-	0.000129	-	-	2.68	2.61
Standard deviation	8.3	-	-	0.00012	0.00013	0.00104	0.00114	0.034	0.133	-	0.000051	-	-	0.75	0.69
Standard error	4.2	-	-	0.00006	0.00007	0.00052	0.00057	0.017	0.067	-	0.000025	-	-	0.37	0.34
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	2	1	0	0	0	0	4	1	4	4	0	0
Percentage of non-detects	0.0	100.0	100.0	50.0	25.0	0.0	0.0	0.0	0.0	100.0	25.0	100.0	100.0	0.0	0.0

Notes:

135 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

5 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.13 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.78012	-	0.0012500	-	7.600000	0.00180	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.97860	-	-	-	46.000000	0.02620	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S4 2025-04-06 10:55:00 VA25A7989-004	0.04850	0.04760	0.0000025	0.0000025	0.000307	0.000344	0.00176	0.00187	0.025	0.025	0.808	0.805	0.003480	0.004070	5.88
WDD-S4 2025-05-06 11:05:00 VA25B0742-004	0.01510	0.01880	0.0000025	0.0000025	0.000637	0.000700	0.00083	0.00106	0.025	0.025	0.288	0.282	0.001090	0.000992	3.63
WDD-S4 2025-06-02 14:30:00 VA25B3466-004	0.00395	0.00571	0.0000025	0.0000025	0.000597	0.000657	0.00025	0.00025	0.025	0.025	0.186	0.193	0.000247	0.000276	3.41
WDD-S4 2025-07-01 10:55:00 VA25B6420-004	0.00534	0.01170	0.0000025	0.0000025	0.000705	0.000696	0.00025	0.00025	0.025	0.025	0.154	0.174	0.000247	0.000294	3.29
Minimum	0.00395	0.00571	-	-	0.000307	0.000344	0.00025	0.00025	-	-	0.154	0.174	0.000247	0.000276	3.29
Mean	0.01822	0.02095	-	-	0.000561	0.000599	0.00077	0.00086	-	-	0.359	0.364	0.001266	0.001408	4.05
Median	0.01022	0.01525	-	-	0.000617	0.000677	0.00054	0.00066	-	-	0.237	0.238	0.000669	0.000643	3.52
Maximum	0.04850	0.04760	-	-	0.000705	0.000700	0.00176	0.00187	-	-	0.808	0.805	0.003480	0.004070	5.88
25th percentile	0.00499	0.01020	-	-	0.000524	0.000579	0.00025	0.00025	-	-	0.178	0.188	0.000247	0.000290	3.38
75th percentile	0.02345	0.02600	-	-	0.000654	0.000697	0.00106	0.00126	-	-	0.418	0.413	0.001688	0.001762	4.19
95th percentile	0.04349	0.04328	-	-	0.000695	0.000699	0.00162	0.00175	-	-	0.730	0.727	0.003121	0.003608	5.54
Standard deviation	0.02079	0.01855	-	-	0.000175	0.000171	0.00071	0.00078	-	-	0.305	0.298	0.001529	0.001806	1.23
Standard error	0.01039	0.00928	-	-	0.000088	0.000086	0.00036	0.00039	-	-	0.152	0.149	0.000764	0.000903	0.61
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	4	4	0	0	2	2	4	4	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	50.0	50.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

135	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.13 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WDD-S4 2025-04-06 10:55:00 VA25A7989-004	6.19	0.000005	0.000005	25.90	25.60	0.1310	0.1340	24.50	26.40	0.000005	0.000005	0.00005	0.00005	0.00015	0.00183
WDD-S4 2025-05-06 11:05:00 VA25B0742-004	3.70	0.000005	0.000005	6.75	6.87	0.0635	0.0637	7.60	7.73	0.000005	0.000005	0.00005	0.00005	0.00140	0.00612
WDD-S4 2025-06-02 14:30:00 VA25B3466-004	3.43	0.000005	0.000005	2.12	2.17	0.0399	0.0435	2.67	2.84	0.000005	0.000005	0.00005	0.00005	0.00076	0.00236
WDD-S4 2025-07-01 10:55:00 VA25B6420-004	3.98	0.000005	0.000005	2.65	2.74	0.0498	0.0503	3.25	3.30	0.000005	0.000005	0.00005	0.00005	0.00057	0.00504
Minimum	3.43	-	-	2.12	2.17	0.0399	0.0435	2.67	2.84	-	-	-	-	0.00015	0.00183
Mean	4.32	-	-	9.36	9.35	0.0711	0.0729	9.50	10.07	-	-	-	-	0.00072	0.00384
Median	3.84	-	-	4.70	4.80	0.0566	0.0570	5.42	5.52	-	-	-	-	0.00066	0.00370
Maximum	6.19	-	-	25.90	25.60	0.1310	0.1340	24.50	26.40	-	-	-	-	0.00140	0.00612
25th percentile	3.63	-	-	2.52	2.60	0.0473	0.0486	3.10	3.18	-	-	-	-	0.00046	0.00223
75th percentile	4.53	-	-	11.54	11.55	0.0804	0.0813	11.82	12.40	-	-	-	-	0.00092	0.00531
95th percentile	5.86	-	-	23.03	22.79	0.1209	0.1235	21.96	23.60	-	-	-	-	0.00130	0.00596
Standard deviation	1.26	-	-	11.22	11.04	0.0411	0.0416	10.24	11.11	-	-	-	-	0.00052	0.00207
Standard error	0.63	-	-	5.61	5.52	0.0206	0.0208	5.12	5.55	-	-	-	-	0.00026	0.00104
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	0	0	0	0	0	0	4	4	4	4	1	0
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	25.0	0.0

Notes:

135	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.13 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0080	-	-	-	1.8500	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0289	-	-	-	12.7000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WDD-S4	2025-04-06 10:55:00	VA25A7989-004	0.000022	0.000024	0.00025	0.00025	0.0016	0.0015	0.00010	0.00010	0.0074	0.2560	0.0005	0.0005	0.0010
WDD-S4	2025-05-06 11:05:00	VA25B0742-004	0.000034	0.000039	0.00025	0.00057	0.0012	0.0015	0.00010	0.00024	0.0078	0.1050	0.0005	0.0005	0.0052
WDD-S4	2025-06-02 14:30:00	VA25B3466-004	0.000022	0.000026	0.00025	0.00025	0.0005	0.0015	0.00010	0.00010	0.0069	0.0077	0.0005	0.0005	0.0037
WDD-S4	2025-07-01 10:55:00	VA25B6420-004	0.000024	0.000027	0.00025	0.00061	0.0005	0.0015	0.00026	0.00010	0.0058	0.0103	0.0005	0.0005	0.0023
		Minimum	0.000022	0.000024	-	0.00025	0.0005	-	-	-	0.0058	0.0077	-	-	0.0010
		Mean	0.000026	0.000029	-	0.00042	0.0010	-	-	-	0.0070	0.0948	-	-	0.0030
		Median	0.000023	0.000027	-	0.00041	0.0008	-	-	-	0.0072	0.0576	-	-	0.0030
		Maximum	0.000034	0.000039	-	0.00061	0.0016	-	-	-	0.0078	0.2560	-	-	0.0052
		25th percentile	0.000022	0.000026	-	0.00025	0.0005	-	-	-	0.0066	0.0097	-	-	0.0020
		75th percentile	0.000027	0.000030	-	0.00058	0.0013	-	-	-	0.0075	0.1427	-	-	0.0041
		95th percentile	0.000032	0.000037	-	0.00060	0.0015	-	-	-	0.0077	0.2333	-	-	0.0050
		Standard deviation	0.000006	0.000007	-	0.00020	0.0005	-	-	-	0.0009	0.1166	-	-	0.0018
		Standard error	0.000003	0.000003	-	0.00010	0.0003	-	-	-	0.0004	0.0583	-	-	0.0009
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	4	2	2	4	3	3	0	0	4	4	1
		Percentage of non-detects	0.0	0.0	100.0	50.0	50.0	100.0	75.0	75.0	0.0	0.0	100.0	100.0	25.0

Notes:

135 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

5 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.14 2025 Kemess Water Quality Data – (WQ-13).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	128.00	-	0.1351
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-		-	-	600.00	0.770	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-		-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-		-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-		-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-13	2025-02-12 10:45:00	VA25A3370-011	3.10	108.0	1.5	0.32	7.68	-	40.1	0.025	0.25	0.010	46.3	46.9	6.64	0.0059	0.0129
WQ-13	2025-05-20 16:30:00	VA25B2045-017	6.57	59.5	1.5	2.05	7.48	-	24.6	-	0.25	-	26.8	27.6	4.83	0.0521	0.1160
WQ-13	2025-06-17 09:37:00	VA25B5014-015	4.16	56.3	1.5	0.40	7.46	-	22.2	0.025	0.25	0.024	24.6	24.8	6.47	0.0270	0.0592
WQ-13	2025-08-11 14:37:00	VA25C0242-011	3.62	76.7	1.5	0.50	7.60	-	31.7	-	0.25	-	57.9	61.3	7.65	0.0111	0.0457
WQ-13	2025-09-17 15:00	-	-	-	-	-	-	6.7	-	-	-	-	-	-	-	-	-
WQ-13	2025-10-14 17:35:00	VA25C7726-005	2.89	82.7	1.5	0.45	7.68	-	33.4	-	0.25	-	37.8	39.6	9.71	0.0119	0.0207
		Minimum	2.89	56.3	-	0.32	7.46	6.7	22.2	-	-	0.010	24.6	24.8	4.83	0.0059	0.0129
		Mean	4.07	76.6	-	0.74	7.58	6.7	30.4	-	-	0.017	38.7	40.0	7.06	0.0216	0.0509
		Median	3.62	76.7	-	0.45	7.60	6.7	31.7	-	-	0.017	37.8	39.6	6.64	0.0119	0.0457
		Maximum	6.57	108.0	-	2.05	7.68	6.7	40.1	-	-	0.024	57.9	61.3	9.71	0.0521	0.1160
		25th percentile	3.10	59.5	-	0.40	7.48	6.7	24.6	-	-	0.014	26.8	27.6	6.47	0.0111	0.0207
		75th percentile	4.16	82.7	-	0.50	7.68	6.7	33.4	-	-	0.020	46.3	46.9	7.65	0.0270	0.0592
		95th percentile	6.09	102.9	-	1.74	7.68	6.7	38.8	-	-	0.023	55.6	58.4	9.30	0.0471	0.1046
		Standard deviation	1.48	20.8	-	0.73	0.11	-	7.2	-	-	0.010	13.9	14.9	1.79	0.0188	0.0409
		Standard error	0.66	9.3	-	0.33	0.05	-	3.2	-	-	0.007	6.2	6.7	0.80	0.0084	0.0183
		Sample size	5	5	5	5	5	1	5	2	5	2	5	5	5	5	5
		Number of non-detects	0	0	5	0	0	0	0	2	5	1	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	100.0	0.0	0.0	0	0.0	100.0	100.0	50.0	0.0	0.0	0.0	0.0	0.0

Notes:

218	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.14 (Cont'd.)

			Metals														
			Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
	Detection Limit		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0000750	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0001390	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.00000	-	0.00013	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-13	2025-02-12 10:45:00	VA25A3370-011	0.00005	0.00005	0.00011	0.00013	0.01370	0.01430	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	15.40
WQ-13	2025-05-20 16:30:00	VA25B2045-017	0.00005	0.00005	0.00005	0.00017	0.00839	0.00928	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	8.77
WQ-13	2025-06-17 09:37:00	VA25B5014-015	0.00005	0.00005	0.00005	0.00015	0.00755	0.00809	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	8.29
WQ-13	2025-08-11 14:37:00	VA25C0242-011	0.00005	0.00005	0.00063	0.00067	0.01840	0.01820	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.0000106	20.40
WQ-13	2025-09-17 15:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-13	2025-10-14 17:35:00	VA25C7726-005	0.00005	0.00005	0.00011	0.00013	0.01010	0.01050	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	12.70
	Minimum		-	-	0.00005	0.00013	0.00755	0.00809	-	-	-	-	-	-	-	-	8.29
	Mean		-	-	0.00019	0.00025	0.01163	0.01207	-	-	-	-	-	-	-	-	13.11
	Median		-	-	0.00011	0.00015	0.01010	0.01050	-	-	-	-	-	-	-	-	12.70
	Maximum		-	-	0.00063	0.00067	0.01840	0.01820	-	-	-	-	-	-	-	-	20.40
	25th percentile		-	-	0.00005	0.00013	0.00839	0.00928	-	-	-	-	-	-	-	-	8.77
	75th percentile		-	-	0.00011	0.00017	0.01370	0.01430	-	-	-	-	-	-	-	-	15.40
	95th percentile		-	-	0.00053	0.00057	0.01746	0.01742	-	-	-	-	-	-	-	-	19.40
	Standard deviation		-	-	0.00025	0.00024	0.00446	0.00414	-	-	-	-	-	-	-	-	5.02
	Standard error		-	-	0.00011	0.00011	0.00200	0.00185	-	-	-	-	-	-	-	-	2.24
	Sample size		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Number of non-detects		5	5	2	0	0	0	5	5	5	5	5	5	5	4	0
	Percentage of non-detects		100.0	100.0	40.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	0.0

Notes:

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1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.14 (Cont'd.)

			Metals														
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
		Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.00054	-	-	-	-	0.002901	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00332	-	0.350	1.000	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**															
WQ-13	2025-02-12 10:45:00	VA25A3370-011	15.80	0.00025	0.00025	0.00005	0.00005	0.00059	0.00064	0.092	0.138	0.000025	0.000025	0.0005	0.0005	1.900	1.810
WQ-13	2025-05-20 16:30:00	VA25B2045-017	9.01	0.00025	0.00025	0.00005	0.00005	0.00098	0.00120	0.128	0.246	0.000025	0.000025	0.0005	0.0005	1.200	1.240
WQ-13	2025-06-17 09:37:00	VA25B5014-015	8.30	0.00025	0.00025	0.00005	0.00005	0.00072	0.00088	0.046	0.085	0.000025	0.000025	0.0005	0.0005	0.961	0.986
WQ-13	2025-08-11 14:37:00	VA25C0242-011	21.80	0.00025	0.00025	0.00005	0.00005	0.00070	0.00078	0.014	0.052	0.000025	0.000025	0.0005	0.0005	1.690	1.660
WQ-13	2025-09-17 15:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-13	2025-10-14 17:35:00	VA25C7726-005	13.30	0.00025	0.00025	0.00005	0.00005	0.00063	0.00069	0.057	0.090	0.000025	0.000025	0.0005	0.0005	1.490	1.540
		Minimum	8.30	-	-	-	-	0.00059	0.00064	0.014	0.052	-	-	-	-	0.961	0.986
		Mean	13.64	-	-	-	-	0.00072	0.00084	0.067	0.122	-	-	-	-	1.448	1.447
		Median	13.30	-	-	-	-	0.00070	0.00078	0.057	0.090	-	-	-	-	1.490	1.540
		Maximum	21.80	-	-	-	-	0.00098	0.00120	0.128	0.246	-	-	-	-	1.900	1.810
		25th percentile	9.01	-	-	-	-	0.00063	0.00069	0.046	0.085	-	-	-	-	1.200	1.240
		75th percentile	15.80	-	-	-	-	0.00072	0.00088	0.092	0.138	-	-	-	-	1.690	1.660
		95th percentile	20.60	-	-	-	-	0.00093	0.00114	0.121	0.224	-	-	-	-	1.858	1.780
		Standard deviation	5.51	-	-	-	-	0.00015	0.00022	0.044	0.076	-	-	-	-	0.375	0.332
		Standard error	2.46	-	-	-	-	0.00007	0.00010	0.020	0.034	-	-	-	-	0.168	0.149
		Sample size	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
		Number of non-detects	0	5	5	5	5	0	0	0	0	5	5	5	5	0	0
		Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

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1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.14 (Cont'd.)

			Metals														
			Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
	Detection Limit		0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.71324	-	0.0012500	-	7.600000	0.00090	-	-	-	-	-	-	0.002000	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.81109	-	-	-	46.000000	0.01460	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-13	2025-02-12 10:45:00	VA25A3370-011	0.00896	0.01040	0.0000025	0.0000025	0.000674	0.000680	0.00025	0.00025	0.025	0.025	0.227	0.218	0.000080	0.000135	3.78
WQ-13	2025-05-20 16:30:00	VA25B2045-017	0.00492	0.00924	0.0000025	0.0000025	0.000474	0.000474	0.00025	0.00025	0.025	0.025	0.225	0.226	0.000091	0.000111	3.19
WQ-13	2025-06-17 09:37:00	VA25B5014-015	0.00303	0.00619	0.0000025	0.0000025	0.000647	0.000678	0.00025	0.00025	0.025	0.025	0.187	0.206	0.000144	0.000131	2.84
WQ-13	2025-08-11 14:37:00	VA25C0242-011	0.00154	0.00392	0.0000025	0.0000025	0.014300	0.014200	0.00025	0.00025	0.025	0.025	0.441	0.371	0.000292	0.000272	3.11
WQ-13	2025-09-17 15:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-13	2025-10-14 17:35:00	VA25C7726-005	0.00491	0.00799	0.0000025	0.0000025	0.000742	0.000726	0.00025	0.00025	0.025	0.025	0.168	0.172	0.000164	0.000112	3.32
	Minimum		0.00154	0.00392	-	-	0.000474	0.000474	-	-	-	-	0.168	0.172	0.000080	0.000111	2.84
	Mean		0.00467	0.00755	-	-	0.003367	0.003352	-	-	-	-	0.250	0.239	0.000154	0.000152	3.25
	Median		0.00491	0.00799	-	-	0.000674	0.000680	-	-	-	-	0.225	0.218	0.000144	0.000131	3.19
	Maximum		0.00896	0.01040	-	-	0.014300	0.014200	-	-	-	-	0.441	0.371	0.000292	0.000272	3.78
	25th percentile		0.00303	0.00619	-	-	0.000647	0.000678	-	-	-	-	0.187	0.206	0.000091	0.000112	3.11
	75th percentile		0.00492	0.00924	-	-	0.000742	0.000726	-	-	-	-	0.227	0.226	0.000164	0.000135	3.32
	95th percentile		0.00815	0.01017	-	-	0.011588	0.011505	-	-	-	-	0.398	0.342	0.000266	0.000245	3.69
	Standard deviation		0.00278	0.00256	-	-	0.006112	0.006065	-	-	-	-	0.110	0.077	0.000085	0.000068	0.35
	Standard error		0.00125	0.00114	-	-	0.002734	0.002712	-	-	-	-	0.049	0.034	0.000038	0.000030	0.15
	Sample size		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Number of non-detects		0	0	5	5	0	0	5	5	5	5	0	0	0	0	0
	Percentage of non-detects		0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

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1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.14 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
		Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-13	2025-02-12 10:45:00	VA25A3370-011	3.94	0.000005	0.000005	1.67	1.57	0.0527	0.0514	3.09	3.10	0.000005	0.000005	0.00005	0.00005	0.00015	0.00033
WQ-13	2025-05-20 16:30:00	VA25B2045-017	3.52	0.000005	0.000005	1.09	1.19	0.0335	0.0329	1.30	1.67	0.000005	0.000005	0.00005	0.00005	0.00062	0.00345
WQ-13	2025-06-17 09:37:00	VA25B5014-015	3.11	0.000005	0.000005	1.01	1.02	0.0286	0.0288	1.92	1.99	0.000005	0.000005	0.00005	0.00005	0.00015	0.00104
WQ-13	2025-08-11 14:37:00	VA25C0242-011	3.15	0.000005	0.000005	5.70	5.15	0.0948	0.0922	6.96	7.00	0.000005	0.000005	0.00005	0.00005	0.00015	0.00127
WQ-13	2025-09-17 15:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-13	2025-10-14 17:35:00	VA25C7726-005	3.74	0.000005	0.000005	1.34	1.30	0.0391	0.0407	2.83	3.13	0.000005	0.000005	0.00005	0.00005	0.00015	0.00033
		Minimum	3.11	-	-	1.01	1.02	0.0286	0.0288	1.30	1.67	-	-	-	-	-	0.00033
		Mean	3.49	-	-	2.16	2.05	0.0497	0.0492	3.22	3.38	-	-	-	-	-	0.00128
		Median	3.52	-	-	1.34	1.30	0.0391	0.0407	2.83	3.10	-	-	-	-	-	0.00104
		Maximum	3.94	-	-	5.70	5.15	0.0948	0.0922	6.96	7.00	-	-	-	-	-	0.00345
		25th percentile	3.15	-	-	1.09	1.19	0.0335	0.0329	1.92	1.99	-	-	-	-	-	0.00033
		75th percentile	3.74	-	-	1.67	1.57	0.0527	0.0514	3.09	3.13	-	-	-	-	-	0.00127
		95th percentile	3.90	-	-	4.89	4.43	0.0864	0.0840	6.19	6.23	-	-	-	-	-	0.00301
		Standard deviation	0.36	-	-	1.99	1.75	0.0268	0.0255	2.21	2.13	-	-	-	-	-	0.00128
		Standard error	0.16	-	-	0.89	0.78	0.0120	0.0114	0.99	0.95	-	-	-	-	-	0.00057
		Sample size	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
		Number of non-detects	0	5	5	0	0	0	0	0	0	5	5	5	5	4	0
		Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	80.0	0.0

Notes:

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1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.14 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0046	-	-	-	1.7500	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0172	-	-	-	9.1200	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-13	2025-02-12 10:45:00	VA25A3370-011	0.000021	0.000024	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0130	0.0005	0.0005	0.0010
WQ-13	2025-05-20 16:30:00	VA25B2045-017	0.000020	0.000024	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0063	0.0025	0.0005	0.0005	0.0060
WQ-13	2025-06-17 09:37:00	VA25B5014-015	0.000024	0.000026	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0025	0.0005	0.0005	0.0024
WQ-13	2025-08-11 14:37:00	VA25C0242-011	0.000177	0.000193	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0025	0.0005	0.0005	0.0010
WQ-13	2025-09-17 15:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-13	2025-10-14 17:35:00	VA25C7726-005	0.000019	0.000018	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0127	0.0025	0.0005	0.0005	0.0010
		Minimum	0.000019	0.000018	-	-	-	-	-	-	-	-	-	-	-
		Mean	0.000052	0.000057	-	-	-	-	-	-	-	-	-	-	-
		Median	0.000021	0.000024	-	-	-	-	-	-	-	-	-	-	-
		Maximum	0.000177	0.000193	-	-	-	-	-	-	-	-	-	-	-
		25th percentile	0.000020	0.000024	-	-	-	-	-	-	-	-	-	-	-
		75th percentile	0.000024	0.000026	-	-	-	-	-	-	-	-	-	-	-
		95th percentile	0.000146	0.000160	-	-	-	-	-	-	-	-	-	-	-
		Standard deviation	0.000070	0.000076	-	-	-	-	-	-	-	-	-	-	-
		Standard error	0.000031	0.000034	-	-	-	-	-	-	-	-	-	-	-
		Sample size	5	5	5	5	5	5	5	5	5	5	5	5	5
		Number of non-detects	0	0	5	5	5	5	5	5	3	4	5	5	3
		Percentage of non-detects	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	60.0	80.0	100.0	100.0	60.0

Notes:

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1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.15 2025 Kemess Water Quality Data – (WQ-14ds).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.5	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.1301
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.135	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-14ds	2025-01-01 10:30:00	VA25A0124-001	-	-	1.5	0.50	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-01-12 14:00:00	VA25A0822-006	4.23	300	1.5	0.60	8.20	7.66	109.0	-	0.25	-	104.0	105.0	41.9	0.00390	0.0116
WQ-14ds	2025-01-29 10:15:00	VA25A2194-001	-	-	1.5	0.43	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-02-12 16:15:00	VA25A3370-012	3.14	291	3.8	0.87	8.10	7.86	94.6	0.025	0.25	0.043	105.0	104.0	18.0	0.00720	0.0276
WQ-14ds	2025-02-26 09:30:00	VA25A4475-001	3.85	273	3.4	1.65	8.20	7.56	90.7	-	0.25	-	92.6	91.5	47.6	0.00750	0.1140
WQ-14ds	2025-03-11 09:45:00	VA25A5732-006	3.14	259	1.5	0.31	7.93	6.92	89.0	-	0.25	-	95.6	95.4	47.6	0.00532	0.0174
WQ-14ds	2025-03-26 13:30:00	VA25A7010-001	-	-	1.5	0.34	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-07 07:55:00	VA25A7987-001	-	276	1.5	0.32	7.77	7.48	97.2	-	0.25	-	94.2	-	43.4	-	-
WQ-14ds	2025-04-22 08:45:00	VA25A9398-006	4.20	315	1.5	0.79	8.31	7.10	119.0	-	0.25	-	114.0	113.0	46.8	0.00620	0.0208
WQ-14ds	2025-05-07 08:25:00	VA25B0755-002	-	198	4.5	2.12	7.84	7.56	74.0	-	0.25	-	70.3	-	26.8	-	-
WQ-14ds	2025-05-20 16:05:00	VA25B2045-006	6.32	145	1.5	0.91	7.92	7.68	52.9	-	0.25	-	52.3	52.5	18.2	0.01430	0.0371
WQ-14ds	2025-06-03 14:30:00	VA25B3458-002	-	135	1.5	0.37	7.97	7.08	53.6	-	0.25	-	55.4	-	16.0	-	-
WQ-14ds	2025-06-05 06:00:00	VA25B3469-005	4.61	130	1.5	1.15	7.62	7.08	32.2	-	1.28	-	43.8	48.0	29.3	0.03450	0.0826
WQ-14ds	2025-06-18 09:45:00	VA25B5014-005	5.18	160	3.2	0.60	7.96	7.63	65.8	0.025	0.25	0.069	60.9	63.4	18.8	0.01090	0.0822
WQ-14ds	2025-07-02 07:25:00	VA25B6425-002	-	155	1.5	0.64	8.13	7.74	65.1	-	0.25	-	62.4	-	15.5	-	-
WQ-14ds	2025-07-16 11:15:00	VA25B7664-004	4.95	163	1.5	0.50	8.06	7.66	70.1	-	0.25	-	71.1	68.2	16.1	0.01160	0.0309
WQ-14ds	2025-07-27 10:50:00	VA25B8815-002	-	167	1.5	0.64	8.03	7.61	72.8	-	0.25	-	73.6	-	14.3	-	-
WQ-14ds	2025-08-13 15:55:00	VA25C0473-004	5.12	201	1.5	0.79	8.12	7.78	90.0	0.025	0.25	0.083	83.3	81.1	15.6	0.00880	0.0335
WQ-14ds	2025-08-25 10:40:00	VA25C1840-002	-	-	1.5	0.54	8.09	7.65	90.4	-	0.25	-	90.6	-	17.6	-	-
WQ-14ds	2025-09-10 11:25:00	VA25C3871-008	4.21	240	1.5	0.39	8.37	7.47	108.0	-	0.25	-	91.7	94.6	19.7	0.00560	0.0113
WQ-14ds	2025-09-22 08:35:00	VA25C5315-002	-	209	1.5	3.02	8.21	7.51	84.3	-	0.25	-	93.0	-	21.0	-	-

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001150	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002510	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code														
WQ-14ds	2025-01-01 10:30:00	VA25A0124-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-01-12 14:00:00	VA25A0822-006	0.00005	0.00005	0.00014	0.00015	0.0369	0.0374	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	35.3
WQ-14ds	2025-01-29 10:15:00	VA25A2194-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-02-12 16:15:00	VA25A3370-012	0.00005	0.00005	0.00011	0.00017	0.0350	0.0366	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	36.2
WQ-14ds	2025-02-26 09:30:00	VA25A4475-001	0.00005	0.00005	0.00014	0.00019	0.0330	0.0348	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000062	0.00001160	31.5
WQ-14ds	2025-03-11 09:45:00	VA25A5732-006	0.00005	0.00005	0.00005	0.00012	0.0304	0.0293	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000515	32.9
WQ-14ds	2025-03-26 13:30:00	VA25A7010-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-07 07:55:00	VA25A7987-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33.0
WQ-14ds	2025-04-22 08:45:00	VA25A9398-006	0.00005	0.00005	0.00012	0.00013	0.0350	0.0358	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	38.8
WQ-14ds	2025-05-07 08:25:00	VA25B0755-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.8
WQ-14ds	2025-05-20 16:05:00	VA25B2045-006	0.00005	0.00005	0.00013	0.00016	0.0215	0.0210	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	18.2
WQ-14ds	2025-06-03 14:30:00	VA25B3458-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.5
WQ-14ds	2025-06-05 06:00:00	VA25B3469-005	0.00016	0.00018	0.00034	0.00042	0.0131	0.0130	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000820	15.2
WQ-14ds	2025-06-18 09:45:00	VA25B5014-005	0.00005	0.00005	0.00016	0.00021	0.0250	0.0266	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000790	21.2
WQ-14ds	2025-07-02 07:25:00	VA25B6425-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.9
WQ-14ds	2025-07-16 11:15:00	VA25B7664-004	0.00005	0.00005	0.00018	0.00018	0.0277	0.0271	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000058	0.00000250	24.9
WQ-14ds	2025-07-27 10:50:00	VA25B8815-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.8
WQ-14ds	2025-08-13 15:55:00	VA25C0473-004	0.00005	0.00005	0.00019	0.00023	0.0307	0.0328	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000700	28.8
WQ-14ds	2025-08-25 10:40:00	VA25C1840-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31.6
WQ-14ds	2025-09-10 11:25:00	VA25C3871-008	0.00005	0.00005	0.00018	0.00020	0.0314	0.0314	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	31.8
WQ-14ds	2025-09-22 08:35:00	VA25C5315-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32.6

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Cesium (Cs)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved
Detection Limit	0.05	0.00001	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.005
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.00039	-	0.00044	-	-	-	-	0.003519	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	0.00274	-	0.3500	1.0000	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**														
WQ-14ds	2025-01-01 10:30:00	VA25A0124-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-01-12 14:00:00	VA25A0822-006	36.0	-	0.00025	0.00025	0.00005	0.00005	0.00063	0.00064	0.0150	0.0400	0.000025	0.000025	0.0005	0.0005	3.82
WQ-14ds	2025-01-29 10:15:00	VA25A2194-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-02-12 16:15:00	VA25A3370-012	36.5	-	0.00025	0.00025	0.00005	0.00005	0.00085	0.00098	0.0570	0.1530	0.000025	0.000025	0.0005	0.0005	3.59
WQ-14ds	2025-02-26 09:30:00	VA25A4475-001	31.3	-	0.00025	0.00025	0.00005	0.00011	0.00127	0.00166	0.0550	0.2300	0.000025	0.000025	0.0005	0.0005	3.38
WQ-14ds	2025-03-11 09:45:00	VA25A5732-006	33.2	-	0.00025	0.00025	0.00005	0.00005	0.00103	0.00117	0.0222	0.0404	0.000025	0.000025	0.0005	0.0005	3.28
WQ-14ds	2025-03-26 13:30:00	VA25A7010-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-07 07:55:00	VA25A7987-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.86
WQ-14ds	2025-04-22 08:45:00	VA25A9398-006	39.0	-	0.00025	0.00025	0.00005	0.00005	0.00095	0.00103	0.0430	0.0670	0.000025	0.000025	0.0005	0.0005	4.13
WQ-14ds	2025-05-07 08:25:00	VA25B0755-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.65
WQ-14ds	2025-05-20 16:05:00	VA25B2045-006	18.2	-	0.00025	0.00025	0.00005	0.00005	0.00156	0.00173	0.0210	0.0510	0.000025	0.000025	0.0005	0.0005	1.67
WQ-14ds	2025-06-03 14:30:00	VA25B3458-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.64
WQ-14ds	2025-06-05 06:00:00	VA25B3469-005	16.8	-	0.00025	0.00025	0.00005	0.00005	0.00102	0.00118	0.0620	0.1230	0.000025	0.000025	0.0005	0.0005	1.43
WQ-14ds	2025-06-18 09:45:00	VA25B5014-005	22.1	-	0.00025	0.00025	0.00005	0.00005	0.00142	0.00183	0.0200	0.0940	0.000025	0.000025	0.0005	0.0005	1.94
WQ-14ds	2025-07-02 07:25:00	VA25B6425-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.88
WQ-14ds	2025-07-16 11:15:00	VA25B7664-004	23.8	-	0.00025	0.00025	0.00005	0.00005	0.00147	0.00145	0.0240	0.0510	0.000025	0.000025	0.0005	0.0005	2.16
WQ-14ds	2025-07-27 10:50:00	VA25B8815-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.22
WQ-14ds	2025-08-13 15:55:00	VA25C0473-004	28.0	-	0.00025	0.00025	0.00005	0.00005	0.00111	0.00129	0.0300	0.0760	0.000025	0.000025	0.0005	0.0005	2.76
WQ-14ds	2025-08-25 10:40:00	VA25C1840-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.84
WQ-14ds	2025-09-10 11:25:00	VA25C3871-008	32.8	-	0.00025	0.00025	0.00005	0.00005	0.00094	0.00095	0.0270	0.0370	0.000025	0.000025	0.0005	0.0005	2.98
WQ-14ds	2025-09-22 08:35:00	VA25C5315-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.81

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

	Metals														
	Magnesium (Mg)-Total	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Rubidium (Rb)-Total	Selenium (Se)-Dissolved
Detection Limit	0.005	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.05	0.0002	0.00005
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.79772	-	0.0012500	-	7.60000	0.00150	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	1.02268	-	-	-	46.00000	0.02470	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**														
WQ-14ds	2025-01-01 10:30:00	VA25A0124-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-01-12 14:00:00	VA25A0822-006	3.68	0.00233	0.00435	0.0000025	0.0000025	0.00145	0.00135	0.00025	0.00025	0.025	0.025	0.356	0.365	-	0.00514
WQ-14ds	2025-01-29 10:15:00	VA25A2194-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-02-12 16:15:00	VA25A3370-012	3.22	0.02360	0.02950	0.0000025	0.0000025	0.00179	0.00184	0.00025	0.00025	0.025	0.025	0.379	0.388	-	0.00707
WQ-14ds	2025-02-26 09:30:00	VA25A4475-001	3.24	0.05040	0.05920	0.0000025	0.0000025	0.00174	0.00188	0.00025	0.00025	0.025	0.025	0.585	0.571	-	0.00661
WQ-14ds	2025-03-11 09:45:00	VA25A5732-006	3.04	0.01170	0.01240	0.0000025	0.0000025	0.00170	0.00175	0.00025	0.00025	0.025	0.025	0.490	0.464	-	0.00579
WQ-14ds	2025-03-26 13:30:00	VA25A7010-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-07 07:55:00	VA25A7987-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-22 08:45:00	VA25A9398-006	3.90	0.00380	0.00525	0.0000025	0.0000025	0.00169	0.00180	0.00025	0.00025	0.025	0.025	0.698	0.663	-	0.00608
WQ-14ds	2025-05-07 08:25:00	VA25B0755-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-05-20 16:05:00	VA25B2045-006	1.72	0.00052	0.00322	0.0000025	0.0000025	0.00136	0.00133	0.00025	0.00025	0.025	0.025	0.289	0.284	-	0.00122
WQ-14ds	2025-06-03 14:30:00	VA25B3458-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-06-05 06:00:00	VA25B3469-005	1.48	0.00422	0.00717	0.0000025	0.0000025	0.00863	0.00950	0.00025	0.00025	0.025	0.025	0.355	0.365	-	0.00110
WQ-14ds	2025-06-18 09:45:00	VA25B5014-005	2.00	0.00112	0.00873	0.0000025	0.0000025	0.00140	0.00144	0.00025	0.00025	0.025	0.025	0.268	0.275	-	0.00156
WQ-14ds	2025-07-02 07:25:00	VA25B6425-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-07-16 11:15:00	VA25B7664-004	2.13	0.00167	0.00429	0.0000025	0.0000025	0.00136	0.00147	0.00025	0.00025	0.025	0.025	0.158	0.176	-	0.00158
WQ-14ds	2025-07-27 10:50:00	VA25B8815-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-08-13 15:55:00	VA25C0473-004	2.71	0.00230	0.00807	0.0000025	0.0000025	0.00172	0.00171	0.00025	0.00025	0.025	0.025	0.202	0.212	-	0.00175
WQ-14ds	2025-08-25 10:40:00	VA25C1840-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-09-10 11:25:00	VA25C3871-008	3.08	0.00626	0.00765	0.0000025	0.0000025	0.00199	0.00208	0.00025	0.00025	0.025	0.025	0.241	0.232	-	0.00203
WQ-14ds	2025-09-22 08:35:00	VA25C5315-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

	Metals														
	Selenium (Se)-Total	Silicon (Si)-Dissolved	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Tellurium (Te)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Thorium (Th)-Total
Detection Limit	0.00005	0.05	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.0002	0.00001	0.00001	0.0001
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	0.00200	-	-	-	0.000120	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	1.2500	-	-	-	-	-	0.000030	-
Permit-15335	0.01500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code														
WQ-14ds	2025-01-01 10:30:00	VA25A0124-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-01-12 14:00:00	VA25A0822-006	0.00481	4.17	4.43	0.000005	0.000005	18.90	18.30	0.1940	0.1930	15.00	15.00	-	0.000005	0.000005	-
WQ-14ds	2025-01-29 10:15:00	VA25A2194-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-02-12 16:15:00	VA25A3370-012	0.00754	4.10	4.33	0.000005	0.000005	18.50	18.60	0.1990	0.2000	16.30	15.80	-	0.000005	0.000005	-
WQ-14ds	2025-02-26 09:30:00	VA25A4475-001	0.00686	4.52	4.51	0.000005	0.000005	19.60	18.90	0.1850	0.1860	15.90	16.60	-	0.000005	0.000005	-
WQ-14ds	2025-03-11 09:45:00	VA25A5732-006	0.00612	4.03	4.19	0.000005	0.000005	19.20	18.20	0.1840	0.1730	14.80	15.00	-	0.000005	0.000005	-
WQ-14ds	2025-03-26 13:30:00	VA25A7010-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-07 07:55:00	VA25A7987-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-22 08:45:00	VA25A9398-006	0.00593	4.28	4.19	0.000005	0.000005	22.00	22.80	0.2020	0.2140	15.60	15.50	-	0.000005	0.000005	-
WQ-14ds	2025-05-07 08:25:00	VA25B0755-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-05-20 16:05:00	VA25B2045-006	0.00126	3.04	3.21	0.000005	0.000005	7.29	8.27	0.0933	0.0928	5.82	6.76	-	0.000005	0.000005	-
WQ-14ds	2025-06-03 14:30:00	VA25B3458-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-06-05 06:00:00	VA25B3469-005	0.00118	3.10	3.19	0.000005	0.000005	8.34	8.32	0.1040	0.1150	9.28	10.40	-	0.000005	0.000005	-
WQ-14ds	2025-06-18 09:45:00	VA25B5014-005	0.00179	3.31	3.50	0.000005	0.000005	8.81	9.09	0.1100	0.1120	6.36	6.07	-	0.000005	0.000005	-
WQ-14ds	2025-07-02 07:25:00	VA25B6425-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-07-16 11:15:00	VA25B7664-004	0.00151	3.82	3.82	0.000005	0.000005	8.34	8.38	0.1160	0.1150	5.29	5.59	-	0.000005	0.000005	-
WQ-14ds	2025-07-27 10:50:00	VA25B8815-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-08-13 15:55:00	VA25C0473-004	0.00180	3.96	4.27	0.000005	0.000005	10.90	10.90	0.1550	0.1470	5.19	6.39	-	0.000005	0.000005	-
WQ-14ds	2025-08-25 10:40:00	VA25C1840-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-09-10 11:25:00	VA25C3871-008	0.00226	3.83	4.05	0.000005	0.000005	13.70	13.40	0.1620	0.1720	7.12	7.56	-	0.000005	0.000005	-
WQ-14ds	2025-09-22 08:35:00	VA25C5315-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

629 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

15 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

			Metals													Nutrients	
			Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total	Tungsten (W)-Total	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N
	Detection Limit		0.0001	0.0001	0.0003	0.0003	0.0001	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	-	-	-	-	0.0086	-	-	-	1.4800	3.0000
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	-	0.0165000	-	-	0.0284	-	-	-	7.7100	32.8000
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	-	0.0075000	-	0.06000	-	-	-	-	-	-
	Permit-15335		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**															
WQ-14ds	2025-01-01 10:30:00	VA25A0124-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-01-12 14:00:00	VA25A0822-006	0.00005	0.00005	0.00015	0.00035	-	0.0000980	0.0001020	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0059	0.3540
WQ-14ds	2025-01-29 10:15:00	VA25A2194-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-02-12 16:15:00	VA25A3370-012	0.00005	0.00005	0.00015	0.00099	-	0.0000920	0.0001030	0.00025	0.00025	0.0012	0.0015	0.0001	0.0001	0.0056	0.1080
WQ-14ds	2025-02-26 09:30:00	VA25A4475-001	0.00005	0.00037	0.00015	0.00357	-	0.0000660	0.0000720	0.00025	0.00025	0.0024	0.0045	0.0001	0.0001	0.0070	0.0841
WQ-14ds	2025-03-11 09:45:00	VA25A5732-006	0.00005	0.00005	0.00015	0.00043	-	0.0000576	0.0000548	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0055	0.1230
WQ-14ds	2025-03-26 13:30:00	VA25A7010-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-07 07:55:00	VA25A7987-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-04-22 08:45:00	VA25A9398-006	0.00005	0.00005	0.00015	0.00057	-	0.0001560	0.0001570	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.3380
WQ-14ds	2025-05-07 08:25:00	VA25B0755-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-05-20 16:05:00	VA25B2045-006	0.00005	0.00005	0.00032	0.00093	-	0.0000280	0.0000310	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0083	0.0225
WQ-14ds	2025-06-03 14:30:00	VA25B3458-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-06-05 06:00:00	VA25B3469-005	0.00005	0.00005	0.00035	0.00200	-	0.0002130	0.0002220	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0115	0.0649
WQ-14ds	2025-06-18 09:45:00	VA25B5014-005	0.00005	0.00005	0.00015	0.00240	-	0.0000320	0.0000340	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0120
WQ-14ds	2025-07-02 07:25:00	VA25B6425-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-07-16 11:15:00	VA25B7664-004	0.00005	0.00005	0.00015	0.00056	-	0.0000300	0.0000310	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0324
WQ-14ds	2025-07-27 10:50:00	VA25B8815-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-08-13 15:55:00	VA25C0473-004	0.00005	0.00005	0.00015	0.00088	-	0.0000470	0.0000510	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0052	0.0488
WQ-14ds	2025-08-25 10:40:00	VA25C1840-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-09-10 11:25:00	VA25C3871-008	0.00005	0.00005	0.00015	0.00015	-	0.0000790	0.0000830	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0708
WQ-14ds	2025-09-22 08:35:00	VA25C5315-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

			Nutrients			Selenium Species		
			Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved	Selenate (Se[VI])-Dissolved	Selenite (Se[IV])-Dissolved	Selenocyanate (SeCN)-Dissolved
		Detection Limit	0.001	0.001	0.002	0.0001	0.0001	0.0001
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	0.0200	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	0.0600	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-
Location	DateTime	COC Code						
WQ-14ds	2025-01-01 10:30:00	VA25A0124-001	-	-	-	-	-	-
WQ-14ds	2025-01-12 14:00:00	VA25A0822-006	0.0005	0.0005	0.0010	-	-	-
WQ-14ds	2025-01-29 10:15:00	VA25A2194-001	-	-	-	-	-	-
WQ-14ds	2025-02-12 16:15:00	VA25A3370-012	0.0005	0.0005	0.0045	0.00457	0.00005	0.00005
WQ-14ds	2025-02-26 09:30:00	VA25A4475-001	0.0005	0.0005	0.0112	0.00633	0.00005	0.00005
WQ-14ds	2025-03-11 09:45:00	VA25A5732-006	0.0005	0.0005	0.0035	-	-	-
WQ-14ds	2025-03-26 13:30:00	VA25A7010-001	-	-	-	-	-	-
WQ-14ds	2025-04-07 07:55:00	VA25A7987-001	-	-	-	-	-	-
WQ-14ds	2025-04-22 08:45:00	VA25A9398-006	0.0005	0.0005	0.0036	-	-	-
WQ-14ds	2025-05-07 08:25:00	VA25B0755-002	-	-	-	-	-	-
WQ-14ds	2025-05-20 16:05:00	VA25B2045-006	0.0005	0.0005	0.0076	-	-	-
WQ-14ds	2025-06-03 14:30:00	VA25B3458-002	-	-	-	-	-	-
WQ-14ds	2025-06-05 06:00:00	VA25B3469-005	0.0005	0.0005	0.0102	-	-	-
WQ-14ds	2025-06-18 09:45:00	VA25B5014-005	0.0005	0.0005	0.0023	0.00116	0.00020	0.00005
WQ-14ds	2025-07-02 07:25:00	VA25B6425-002	-	-	-	-	-	-
WQ-14ds	2025-07-16 11:15:00	VA25B7664-004	0.0005	0.0005	0.0024	-	-	-
WQ-14ds	2025-07-27 10:50:00	VA25B8815-002	-	-	-	-	-	-
WQ-14ds	2025-08-13 15:55:00	VA25C0473-004	0.0005	0.0005	0.0010	0.00114	0.00022	0.00005
WQ-14ds	2025-08-25 10:40:00	VA25C1840-002	-	-	-	-	-	-
WQ-14ds	2025-09-10 11:25:00	VA25C3871-008	0.0005	0.0005	0.0010	-	-	-
WQ-14ds	2025-09-22 08:35:00	VA25C5315-002	-	-	-	-	-	-

Notes:

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15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
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0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4		Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.5	0.3		0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0		-	0.1301
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.135	-	-	-		-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
WQ-14ds	2025-10-16 11:45:00	VA25C7726-008	3.61	204	1.5	0.36	8.10	7.07	82.1	-	0.25	-	75.5	81.6	23.9		0.00520	0.0175
WQ-14ds	2025-10-20 17:15:00	VA25C8154-001	-	202	1.5	1.14	8.14	7.47	78.6	-	0.25	-	82.7	-	25.1		-	-
WQ-14ds	2025-10-27 13:30:00	VA25C8823-001	-	210	1.5	0.84	8.07	7.57	78.6	0.025	0.25	0.079	79.9	-	26.8		-	-
WQ-14ds	2025-11-07 10:20:00	VA25D0025-001	-	205	1.5	0.38	7.97	7.44	76.6	-	0.25	-	81.4	-	29.0		-	-
WQ-14ds	2025-11-18 12:20:00	VA25D1477-004	3.39	-	1.5	-	-	7.45	-	0.025	0.25	0.083	-	91.6	30.8		0.00650	0.0226
WQ-14ds	2025-11-18 12:20:00	VA25D1480-001	-	219	-	0.50	8.12	-	86.7	-	-	-	95.4	-	-		-	-
WQ-14ds	2025-12-03 10:00:00	VA25D2726-001	-	219	1.5	1.00	7.93	7.32	79.1	-	0.25	-	-	84.4	33.3		-	0.0265
WQ-14ds	2025-12-16 14:45:00	VA25D4009-006	2.86	285	3.4	-	8.10	7.34	104.0	0.025	0.25	0.086	95.6	-	46.7		0.00490	-
WQ-14ds	2025-12-16 14:45:00	VA25D4014-001	-	-	-	0.77	-	-	-	-	-	-	-	137.0	-		-	0.0375
		Minimum	2.86	130	-	0.31	7.62	6.92	32.2	-	-	0.043	43.8	48.0	14.3		0.00390	0.0113
		Mean	4.20	215	-	0.80	8.05	7.47	81.8	-	-	0.074	81.8	87.4	27.6		0.00946	0.0382
		Median	4.20	207	-	0.62	8.09	7.51	82.1	-	-	0.081	83.0	91.5	25.1		0.00685	0.0276
		Maximum	6.32	315	-	3.02	8.37	7.86	119.0	-	-	0.086	114.0	137.0	47.6		0.03450	0.1140
		25th percentile	3.44	166	-	0.42	7.96	7.34	72.8	-	-	0.072	70.9	74.7	18.0		0.00539	0.0192
		75th percentile	4.86	262	-	0.88	8.13	7.65	90.7	-	-	0.083	94.5	99.7	33.3		0.01038	0.0373
		95th percentile	5.58	299	-	1.96	8.29	7.77	108.8	-	-	0.085	104.8	120.2	47.4		0.02137	0.0920
		Standard deviation	0.97	55	-	0.60	0.16	0.25	19.3	-	-	0.016	17.9	23.4	11.6		0.00778	0.0303
		Standard error	0.26	11	-	0.11	0.03	0.05	3.9	-	-	0.007	3.7	6.0	2.3		0.00208	0.0078
		Sample size	14	24	28	28	25	25	25	6	25	6	24	15	25		14	15
		Number of non-detects	0	0	23	0	0	0	0	6	24	0	0	0	0		0	0
		Percentage of non-detects	0.0	0.0	82.1	0.0	0.0	0.0	0.0	100.0	96.0	0.0	0.0	0.0	0.0		0.0	0.0

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

			Metals														
			Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
		Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001150	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002510	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-10-16 11:45:00	VA25C7726-008	0.00005	0.00005	0.00012	0.00015	0.0280	0.0281	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	26.0
WQ-14ds	2025-10-20 17:15:00	VA25C8154-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.9
WQ-14ds	2025-10-27 13:30:00	VA25C8823-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.3
WQ-14ds	2025-11-07 10:20:00	VA25D0025-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.4
WQ-14ds	2025-11-18 12:20:00	VA25D1477-004	0.00005	0.00005	0.00011	0.00014	0.0280	0.0290	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	-
WQ-14ds	2025-11-18 12:20:00	VA25D1480-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33.4
WQ-14ds	2025-12-03 10:00:00	VA25D2726-001	-	0.00005	-	0.00015	-	0.0284	-	0.00001	-	0.000025	-	0.005	-	0.00000550	-
WQ-14ds	2025-12-16 14:45:00	VA25D4009-006	0.00005	0.00005	0.00012	-	0.0294	-	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	-	33.2
WQ-14ds	2025-12-16 14:45:00	VA25D4014-001	-	-	-	0.00019	-	0.0449	-	-	-	-	-	-	-	0.00000530	-
		Minimum	-	-	0.00005	0.00012	0.0131	0.0130	-	-	-	-	-	-	-	-	15.2
		Mean	-	-	0.00015	0.00019	0.0289	0.0304	-	-	-	-	-	-	-	-	28.3
		Median	-	-	0.00013	0.00017	0.0299	0.0293	-	-	-	-	-	-	-	-	28.9
		Maximum	-	-	0.00034	0.00042	0.0369	0.0449	-	-	-	-	-	-	-	-	38.8
		25th percentile	-	-	0.00012	0.00015	0.0278	0.0276	-	-	-	-	-	-	-	-	24.6
		75th percentile	-	-	0.00017	0.00020	0.0326	0.0353	-	-	-	-	-	-	-	-	32.9
		95th percentile	-	-	0.00024	0.00029	0.0357	0.0396	-	-	-	-	-	-	-	-	36.1
		Standard deviation	-	-	0.00007	0.00007	0.0061	0.0075	-	-	-	-	-	-	-	-	6.1
		Standard error	-	-	0.00002	0.00002	0.0016	0.0019	-	-	-	-	-	-	-	-	1.2
		Sample size	14	15	14	15	14	15	14	15	14	15	14	15	14	15	24
		Number of non-detects	13	14	1	0	0	0	14	15	14	15	14	15	12	8	0
		Percentage of non-detects	92.9	93.3	7.1	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	85.7	53.3	0.0

Notes:

629	**underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit**
15	**value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average**
0	**value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum**
0	**value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average**
0	**value(s) in this text colour exceeded Permit-15335**
0	**value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)**
0	**value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)**
0	**value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)**

Table A2.15 (Cont'd.)

			Metals													
			Calcium (Ca)-Total	Cesium (Cs)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved
		Detection Limit	0.05	0.00001	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.005
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.00039	-	0.00044	-	-	-	-	0.003519	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	0.00274	-	0.3500	1.0000	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-10-16 11:45:00	VA25C7726-008	28.3	-	0.00025	0.00025	0.00005	0.00005	0.00090	0.00106	0.0230	0.0460	0.000025	0.000025	0.0005	0.0005	2.56
WQ-14ds	2025-10-20 17:15:00	VA25C8154-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.56
WQ-14ds	2025-10-27 13:30:00	VA25C8823-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.84
WQ-14ds	2025-11-07 10:20:00	VA25D0025-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.55
WQ-14ds	2025-11-18 12:20:00	VA25D1477-004	31.9	-	0.00025	0.00025	0.00005	0.00005	0.00079	0.00088	0.0310	0.0660	0.000025	0.000025	0.0005	0.0005	3.13
WQ-14ds	2025-11-18 12:20:00	VA25D1480-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-12-03 10:00:00	VA25D2726-001	29.5	0.000005	-	0.00025	-	0.00005	-	0.00099	-	0.0550	-	0.000025	-	0.0005	-
WQ-14ds	2025-12-16 14:45:00	VA25D4009-006	-	-	0.00025	0.00025	0.00005	0.00005	0.00065	-	0.0200	-	0.000025	0.000025	0.0005	0.0005	3.09
WQ-14ds	2025-12-16 14:45:00	VA25D4014-001	46.5	0.000005	-	-	-	-	-	0.00108	-	0.0850	-	-	-	-	-
		Minimum	16.8	-	-	-	-	-	0.00063	0.00064	0.0150	0.0370	-	-	-	-	1.43
		Mean	30.3	-	-	-	-	-	0.00104	0.00119	0.0322	0.0810	-	-	-	-	2.70
		Median	31.3	-	-	-	-	-	0.00098	0.00108	0.0255	0.0660	-	-	-	-	2.79
		Maximum	46.5	-	-	-	-	-	0.00156	0.00183	0.0620	0.2300	-	-	-	-	4.13
		25th percentile	25.9	-	-	-	-	-	0.00086	0.00098	0.0213	0.0485	-	-	-	-	2.20
		75th percentile	34.6	-	-	-	-	-	0.00123	0.00137	0.0400	0.0895	-	-	-	-	3.10
		95th percentile	41.2	-	-	-	-	-	0.00150	0.00176	0.0587	0.1761	-	-	-	-	3.79
		Standard deviation	7.9	-	-	-	-	-	0.00029	0.00034	0.0156	0.0526	-	-	-	-	0.69
		Standard error	2.0	-	-	-	-	-	0.00008	0.00009	0.0042	0.0136	-	-	-	-	0.14
		Sample size	15	2	14	15	14	15	14	15	14	15	14	15	14	15	24
		Number of non-detects	0	2	14	15	14	14	0	0	0	0	14	15	14	15	0
		Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	93.3	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

			Metals														
			Magnesium (Mg)-Total	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Rubidium (Rb)-Total	Selenium (Se)-Dissolved
		Detection Limit	0.005	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.05	0.0002	0.00005
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.79772	-	0.0012500	-	7.60000	0.00150	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	1.02268	-	-	-	46.00000	0.02470	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-
WQ-14ds	2025-10-16 11:45:00	VA25C7726-008	2.66	0.00180	0.00368	0.0000025	0.0000025	0.00137	0.00130	0.00025	0.00025	0.025	0.025	0.275	0.289	-	0.00216
WQ-14ds	2025-10-20 17:15:00	VA25C8154-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-10-27 13:30:00	VA25C8823-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-11-07 10:20:00	VA25D0025-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-11-18 12:20:00	VA25D1477-004	2.89	0.00231	0.00557	0.0000025	0.0000025	0.00116	0.00120	0.00025	0.00025	0.025	0.025	0.306	0.301	-	0.00250
WQ-14ds	2025-11-18 12:20:00	VA25D1480-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-12-03 10:00:00	VA25D2726-001	2.61	-	0.00554	-	-	-	0.00121	-	0.00025	-	0.025	-	0.295	0.00010	-
WQ-14ds	2025-12-16 14:45:00	VA25D4009-006	-	0.00208	-	0.0000025	0.0000025	0.00127	-	0.00025	0.00025	0.025	0.025	0.305	-	-	0.00287
WQ-14ds	2025-12-16 14:45:00	VA25D4014-001	5.02	-	0.00913	-	-	-	0.00184	-	-	-	-	-	0.445	0.00023	-
		Minimum	1.48	0.00052	0.00322	-	-	0.00116	0.00120	-	-	-	-	0.158	0.176	0.00010	0.00110
		Mean	2.89	0.00815	0.01158	-	-	0.00204	0.00211	-	-	-	-	0.350	0.355	0.00016	0.00339
		Median	2.89	0.00232	0.00717	-	-	0.00157	0.00171	-	-	-	-	0.306	0.301	0.00016	0.00233
		Maximum	5.02	0.05040	0.05920	-	-	0.00863	0.00950	-	-	-	-	0.698	0.663	0.00023	0.00707
		25th percentile	2.37	0.00187	0.00480	-	-	0.00136	0.00134	-	-	-	-	0.270	0.279	0.00013	0.00162
		75th percentile	3.23	0.00575	0.00893	-	-	0.00174	0.00184	-	-	-	-	0.373	0.416	0.00020	0.00563
		95th percentile	4.24	0.03298	0.03841	-	-	0.00431	0.00431	-	-	-	-	0.625	0.599	0.00022	0.00677
		Standard deviation	0.90	0.01360	0.01464	-	-	0.00191	0.00206	-	-	-	-	0.149	0.134	0.00009	0.00221
		Standard error	0.23	0.00363	0.00378	-	-	0.00051	0.00053	-	-	-	-	0.040	0.035	0.00006	0.00059
		Sample size	15	14	15	14	14	14	15	14	15	14	15	14	15	2	14
		Number of non-detects	0	0	0	14	14	0	0	14	15	14	15	0	0	1	0
		Percentage of non-detects	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	50.0	0.0

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

			Metals														
			Selenium (Se)-Total	Silicon (Si)-Dissolved	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Tellurium (Te)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Thorium (Th)-Total
		Detection Limit	0.00005	0.05	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.0002	0.00001	0.00001	0.0001
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	0.00200	-	-	-	0.000120	-	-	-	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	1.2500	-	-	-	-	-	0.000030	-
		Permit-15335	0.01500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-10-16 11:45:00	VA25C7726-008	0.00230	3.65	4.20	0.000005	0.000005	11.30	10.70	0.1290	0.1260	7.72	8.49	-	0.000005	0.000005	-
WQ-14ds	2025-10-20 17:15:00	VA25C8154-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-10-27 13:30:00	VA25C8823-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-11-07 10:20:00	VA25D0025-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-11-18 12:20:00	VA25D1477-004	0.00250	4.21	4.33	0.000005	0.000005	12.60	12.60	0.1410	0.1400	10.10	10.40	-	0.000005	0.000005	-
WQ-14ds	2025-11-18 12:20:00	VA25D1480-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-12-03 10:00:00	VA25D2726-001	0.00275	-	4.31	-	0.000005	-	12.30	-	0.1360	-	11.80	0.0001	-	0.000005	0.00005
WQ-14ds	2025-12-16 14:45:00	VA25D4009-006	-	4.35	-	0.000005	0.000005	13.40	-	0.1500	-	12.80	-	-	0.000005	0.000005	-
WQ-14ds	2025-12-16 14:45:00	VA25D4014-001	0.00423	-	6.09	-	-	-	21.30	-	0.2350	-	19.40	0.0001	-	-	0.00005
		Minimum	0.00118	3.04	3.19	-	-	7.29	8.27	0.0933	0.0928	5.19	5.59	-	-	-	-
		Mean	0.00352	3.88	4.17	-	-	13.78	14.14	0.1517	0.1571	10.52	11.38	-	-	-	-
		Median	0.00250	4.00	4.20	-	-	13.00	12.60	0.1525	0.1470	9.69	10.40	-	-	-	-
		Maximum	0.00754	4.52	6.09	-	-	22.00	22.80	0.2020	0.2350	16.30	19.40	-	-	-	-
		25th percentile	0.00180	3.69	3.93	-	-	9.33	9.89	0.1193	0.1205	6.55	7.16	-	-	-	-
		75th percentile	0.00537	4.20	4.33	-	-	18.80	18.45	0.1847	0.1895	14.95	15.25	-	-	-	-
		95th percentile	0.00706	4.41	4.98	-	-	20.44	21.75	0.2000	0.2203	16.04	17.44	-	-	-	-
		Standard deviation	0.00219	0.46	0.68	-	-	4.97	5.06	0.0374	0.0425	4.37	4.53	-	-	-	-
		Standard error	0.00057	0.12	0.17	-	-	1.33	1.31	0.0100	0.0110	1.17	1.17	-	-	-	-
		Sample size	15	14	15	14	15	14	15	14	15	14	15	2	14	15	2
		Number of non-detects	0	0	0	14	15	0	0	0	0	0	0	2	14	15	2
		Percentage of non-detects	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

			Metals													Nutrients	
			Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total	Tungsten (W)-Total	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N
		Detection Limit	0.0001	0.0001	0.0003	0.0003	0.0001	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	0.0086	-	-	-	1.4800	3.0000
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	0.0165000	-	-	0.0284	-	-	-	7.7100	32.8000
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	0.0075000	-	0.06000	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-10-16 11:45:00	VA25C7726-008	0.00005	0.00005	0.00015	0.00037	-	0.0000500	0.0000470	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.1130
WQ-14ds	2025-10-20 17:15:00	VA25C8154-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-10-27 13:30:00	VA25C8823-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1390
WQ-14ds	2025-11-07 10:20:00	VA25D0025-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-11-18 12:20:00	VA25D1477-004	0.00005	0.00005	0.00015	0.00049	-	0.0000530	0.0000520	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.1530
WQ-14ds	2025-11-18 12:20:00	VA25D1480-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-14ds	2025-12-03 10:00:00	VA25D2726-001	-	0.00005	-	0.00061	0.00005	-	0.0000600	-	0.00025	-	0.0015	-	0.0001	-	-
WQ-14ds	2025-12-16 14:45:00	VA25D4009-006	0.00005	0.00005	0.00015	-	-	0.0000690	-	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.2480
WQ-14ds	2025-12-16 14:45:00	VA25D4014-001	-	-	-	0.00087	0.00005	-	0.0000930	-	-	-	-	-	-	-	-
		Minimum	-	-	-	0.00015	-	0.0000280	0.0000310	-	-	-	-	-	-	0.0025	0.0120
		Mean	-	-	-	0.00101	-	0.0000765	0.0000795	-	-	-	-	-	-	0.0048	0.1274
		Median	-	-	-	0.00061	-	0.0000618	0.0000600	-	-	-	-	-	-	0.0039	0.1080
		Maximum	-	-	-	0.00357	-	0.0002130	0.0002220	-	-	-	-	-	-	0.0115	0.3540
		25th percentile	-	-	-	0.00046	-	0.0000477	0.0000490	-	-	-	-	-	-	0.0025	0.0568
		75th percentile	-	-	-	0.00096	-	0.0000887	0.0000975	-	-	-	-	-	-	0.0058	0.1460
		95th percentile	-	-	-	0.00275	-	0.0001759	0.0001765	-	-	-	-	-	-	0.0094	0.3428
		Standard deviation	-	-	-	0.00094	-	0.0000517	0.0000521	-	-	-	-	-	-	0.0028	0.1070
		Standard error	-	-	-	0.00024	-	0.0000138	0.0000135	-	-	-	-	-	-	0.0007	0.0276
		Sample size	14	15	14	15	2	14	15	14	15	14	15	14	15	14	15
		Number of non-detects	14	14	12	1	2	0	0	14	15	12	14	14	15	7	0
		Percentage of non-detects	100.0	93.3	85.7	6.7	100.0	0.0	0.0	100.0	100.0	85.7	93.3	100.0	100.0	50.0	0.0

Notes:

629 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

15 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.15 (Cont'd.)

			Nutrients			Selenium Species		
			Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved	Selenate (Se[VI])-Dissolved	Selenite (Se[IV])-Dissolved	Selenocyanate (SeCN)-Dissolved
		Detection Limit	0.001	0.001	0.002	0.0001	0.0001	0.0001
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	0.0200	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	0.0600	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-
WQ-14ds	2025-10-16 11:45:00	VA25C7726-008	0.0005	0.0005	0.0010	0.00205	0.00017	0.00005
WQ-14ds	2025-10-20 17:15:00	VA25C8154-001	-	-	-	-	-	-
WQ-14ds	2025-10-27 13:30:00	VA25C8823-001	0.0005	-	-	-	-	-
WQ-14ds	2025-11-07 10:20:00	VA25D0025-001	-	-	-	-	-	-
WQ-14ds	2025-11-18 12:20:00	VA25D1477-004	0.0005	0.0005	0.0010	-	-	-
WQ-14ds	2025-11-18 12:20:00	VA25D1480-001	-	-	-	-	-	-
WQ-14ds	2025-12-03 10:00:00	VA25D2726-001	-	-	-	-	-	-
WQ-14ds	2025-12-16 14:45:00	VA25D4009-006	0.0005	0.0005	0.0040	-	-	-
WQ-14ds	2025-12-16 14:45:00	VA25D4014-001	-	-	-	-	-	-
		Minimum	-	-	0.0010	0.00114	0.00005	-
		Mean	-	-	0.0039	0.00305	0.00014	-
		Median	-	-	0.0030	0.00205	0.00017	-
		Maximum	-	-	0.0112	0.00633	0.00022	-
		25th percentile	-	-	0.0010	0.00116	0.00005	-
		75th percentile	-	-	0.0044	0.00457	0.00020	-
		95th percentile	-	-	0.0106	0.00598	0.00022	-
		Standard deviation	-	-	0.0034	0.00231	0.00008	-
		Standard error	-	-	0.0009	0.00103	0.00004	-
		Sample size	15	14	14	5	5	5
		Number of non-detects	15	14	5	0	2	5
		Percentage of non-detects	100.0	100.0	35.7	0.0	40.0	100.0

Notes:

629	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
15	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

Table A2.16 2025 Kemess Water Quality Data – (WQ-14F).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309.00	-	0.1782
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.361	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-14F	2025-01-12 15:30:00	VA25A0822-007	4.46	429	1.5	1.52	8.38	7.61	192	-	0.25	-	173	170	38.50	0.00240	0.0129
WQ-14F	2025-02-12 16:40:00	VA25A3370-013	4.62	343	13.0	5.53	8.05	7.75	140	0.025	0.25	0.088	145	143	21.30	0.00160	0.0433
WQ-14F	2025-03-11 11:30:00	VA25A5732-007	4.00	374	1.5	0.54	8.13	7.23	173	-	0.25	-	146	147	34.40	0.00228	0.0254
WQ-14F	2025-04-22 09:00:00	VA25A9398-007	5.38	348	1.5	1.26	8.43	6.98	159	-	0.51	-	136	135	32.60	0.00360	0.0088
WQ-14F	2025-05-20 15:45:00	VA25B2045-007	4.69	299	1.5	0.58	8.14	7.71	112	-	0.25	-	102	104	41.80	0.00830	0.0148
WQ-14F	2025-06-16 11:10:00	VA25B4662-008	4.52	290	7.2	1.44	8.32	7.40	121	0.025	0.25	0.101	107	107	31.70	0.00530	0.0200
WQ-14F	2025-07-16 12:00:00	VA25B7664-006	5.23	283	1.5	1.10	8.27	7.71	138	-	0.25	-	122	112	19.10	0.00780	0.0524
WQ-14F	2025-08-13 16:00:00	VA25C0473-005	5.71	300	1.5	1.19	8.27	7.89	154	0.025	0.25	0.111	132	128	10.30	0.00600	0.0287
WQ-14F	2025-09-10 11:40:00	VA25C3871-009	5.05	325	1.5	0.83	8.53	7.71	172	-	0.25	-	140	137	8.87	0.00360	0.0105
WQ-14F	2025-10-14 14:35:00	VA25C7726-001	4.68	304	1.5	0.98	8.32	7.38	150	-	0.25	-	129	127	18.30	0.00530	0.0229
WQ-14F	2025-11-18 11:50:00	VA25D1477-005	3.89	308	1.5	1.17	8.07	7.60	136	0.025	0.52	0.087	129	137	33.30	0.00500	0.0223
WQ-14F	2025-12-16 11:45:00	VA25D4009-007	3.66	351	3.2	2.01	8.23	7.07	146	0.025	0.25	0.077	150	149	44.80	0.00240	0.0071

Notes:

501	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

			Metals														
			Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
	Detection Limit		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0002150	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0006000	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
	Permit-15335		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-14F	2025-01-12 15:30:00	VA25A0822-007	0.00005	0.00005	0.000170	0.00023	0.0601	0.0610	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	58.0
WQ-14F	2025-02-12 16:40:00	VA25A3370-013	0.00005	0.00005	0.000200	0.00024	0.0488	0.0490	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000080	49.0
WQ-14F	2025-03-11 11:30:00	VA25A5732-007	0.00005	0.00005	0.000171	0.00020	0.0503	0.0470	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	49.6
WQ-14F	2025-04-22 09:00:00	VA25A9398-007	0.00005	0.00005	0.000190	0.00018	0.0424	0.0442	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	45.4
WQ-14F	2025-05-20 15:45:00	VA25B2045-007	0.00005	0.00005	0.000190	0.00024	0.0427	0.0428	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	34.5
WQ-14F	2025-06-16 11:10:00	VA25B4662-008	0.00005	0.00005	0.000240	0.00028	0.0413	0.0434	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	36.6
WQ-14F	2025-07-16 12:00:00	VA25B7664-006	0.00005	0.00005	0.000350	0.00040	0.0446	0.0473	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000056	41.7
WQ-14F	2025-08-13 16:00:00	VA25C0473-005	0.00005	0.00005	0.000340	0.00044	0.0450	0.0497	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	45.4
WQ-14F	2025-09-10 11:40:00	VA25C3871-009	0.00005	0.00005	0.000290	0.00033	0.0436	0.0414	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	47.4
WQ-14F	2025-10-14 14:35:00	VA25C7726-001	0.00005	0.00005	0.000220	0.00026	0.0413	0.0449	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	43.9
WQ-14F	2025-11-18 11:50:00	VA25D1477-005	0.00005	0.00005	0.000160	0.00020	0.0420	0.0441	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	43.0
WQ-14F	2025-12-16 11:45:00	VA25D4009-007	0.00005	0.00005	0.000150	0.00018	0.0463	0.0485	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	51.2

Notes:

501	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00051	-	0.000607	-	-	-	-	0.004395	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.003725	-	0.350	1.0000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WQ-14F 2025-01-12 15:30:00 VA25A0822-007	57.0	0.00025	0.00025	0.00005	0.00005	0.000460	0.000540	0.034	0.1620	0.000025	0.000025	0.0005	0.0005	6.79	6.65
WQ-14F 2025-02-12 16:40:00 VA25A3370-013	49.7	0.00025	0.00025	0.00005	0.00005	0.000770	0.001010	0.005	0.1130	0.000025	0.000025	0.0005	0.0005	5.47	4.69
WQ-14F 2025-03-11 11:30:00 VA25A5732-007	50.2	0.00025	0.00025	0.00005	0.00005	0.000735	0.000873	0.005	0.0436	0.000025	0.000025	0.0005	0.0005	5.42	5.18
WQ-14F 2025-04-22 09:00:00 VA25A9398-007	45.4	0.00025	0.00025	0.00005	0.00005	0.000880	0.000930	0.121	0.1670	0.000025	0.000025	0.0005	0.0005	5.62	5.22
WQ-14F 2025-05-20 15:45:00 VA25B2045-007	35.0	0.00025	0.00025	0.00005	0.00005	0.000800	0.000910	0.045	0.0800	0.000025	0.000025	0.0005	0.0005	3.83	3.94
WQ-14F 2025-06-16 11:10:00 VA25B4662-008	36.2	0.00025	0.00025	0.00005	0.00005	0.000820	0.000940	0.041	0.0760	0.000025	0.000025	0.0005	0.0005	3.83	3.99
WQ-14F 2025-07-16 12:00:00 VA25B7664-006	38.5	0.00025	0.00025	0.00005	0.00005	0.000900	0.000950	0.085	0.1920	0.000025	0.000025	0.0005	0.0005	4.37	3.94
WQ-14F 2025-08-13 16:00:00 VA25C0473-005	43.7	0.00025	0.00025	0.00005	0.00005	0.000780	0.000830	0.084	0.1740	0.000025	0.000025	0.0005	0.0005	4.67	4.57
WQ-14F 2025-09-10 11:40:00 VA25C3871-009	47.0	0.00025	0.00025	0.00005	0.00005	0.000730	0.000690	0.037	0.0640	0.000025	0.000025	0.0005	0.0005	5.24	4.78
WQ-14F 2025-10-14 14:35:00 VA25C7726-001	42.8	0.00025	0.00025	0.00005	0.00005	0.000580	0.000770	0.066	0.1520	0.000025	0.000025	0.0005	0.0005	4.70	4.93
WQ-14F 2025-11-18 11:50:00 VA25D1477-005	46.1	0.00025	0.00025	0.00005	0.00005	0.000520	0.000630	0.065	0.1600	0.000025	0.000025	0.0005	0.0005	5.17	5.34
WQ-14F 2025-12-16 11:45:00 VA25D4009-007	49.9	0.00025	0.00025	0.00005	0.00005	0.000460	0.000580	0.042	0.1040	0.000025	0.000025	0.0005	0.0005	5.37	5.95

Notes:

501	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	1.05380	-	0.0012500	-	7.60000	0.00250	-	-	-	-	-	-	0.00200	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.66404	-	-	-	46.00000	0.04000	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01000	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-14F	2025-01-12 15:30:00	VA25A0822-007	0.00517	0.01340	0.0000025	0.0000025	0.000964	0.00102	0.00025	0.00025	0.025	0.025	0.571	0.578	0.001560	0.00155	4.96
WQ-14F	2025-02-12 16:40:00	VA25A3370-013	0.00450	0.03150	0.0000025	0.0000025	0.001970	0.00203	0.00025	0.00025	0.025	0.025	0.612	0.618	0.004910	0.00527	4.94
WQ-14F	2025-03-11 11:30:00	VA25A5732-007	0.00324	0.01460	0.0000025	0.0000025	0.001630	0.00170	0.00025	0.00025	0.025	0.025	0.552	0.552	0.003580	0.00355	4.77
WQ-14F	2025-04-22 09:00:00	VA25A9398-007	0.00315	0.00389	0.0000025	0.0000025	0.001530	0.00166	0.00025	0.00025	0.025	0.025	1.080	1.020	0.003290	0.00328	4.74
WQ-14F	2025-05-20 15:45:00	VA25B2045-007	0.00233	0.00618	0.0000025	0.0000025	0.001840	0.00177	0.00025	0.00025	0.025	0.025	0.592	0.601	0.001470	0.00143	3.13
WQ-14F	2025-06-16 11:10:00	VA25B4662-008	0.00250	0.00740	0.0000025	0.0000025	0.001860	0.00196	0.00025	0.00025	0.025	0.025	0.384	0.397	0.001670	0.00190	3.11
WQ-14F	2025-07-16 12:00:00	VA25B7664-006	0.00610	0.02670	0.0000025	0.0000025	0.001980	0.00196	0.00025	0.00025	0.025	0.025	0.170	0.187	0.001420	0.00135	3.62
WQ-14F	2025-08-13 16:00:00	VA25C0473-005	0.00676	0.02960	0.0000025	0.0000025	0.002100	0.00213	0.00025	0.00025	0.025	0.025	0.191	0.211	0.001220	0.00128	4.20
WQ-14F	2025-09-10 11:40:00	VA25C3871-009	0.00797	0.01460	0.0000025	0.0000025	0.002380	0.00246	0.00025	0.00025	0.025	0.025	0.242	0.205	0.001230	0.00134	3.87
WQ-14F	2025-10-14 14:35:00	VA25C7726-001	0.00674	0.01990	0.0000025	0.0000025	0.001500	0.00146	0.00025	0.00025	0.025	0.025	0.431	0.454	0.001170	0.00132	3.92
WQ-14F	2025-11-18 11:50:00	VA25D1477-005	0.01280	0.02870	0.0000025	0.0000025	0.000977	0.00106	0.00025	0.00025	0.025	0.025	0.478	0.489	0.000894	0.00109	4.44
WQ-14F	2025-12-16 11:45:00	VA25D4009-007	0.01120	0.01560	0.0000025	0.0000025	0.001070	0.00108	0.00025	0.00025	0.025	0.025	0.461	0.461	0.001150	0.00100	4.74

Notes:

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4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
	Detection Limit		0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
	Permit-15335		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-14F	2025-01-12 15:30:00	VA25A0822-007	5.30	0.000005	0.000005	25.4	24.2	0.351	0.362	14.10	13.40	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-14F	2025-02-12 16:40:00	VA25A3370-013	5.35	0.000005	0.000005	22.5	22.0	0.270	0.268	12.30	12.40	0.000005	0.000005	0.00005	0.00005	0.00015	0.00090
WQ-14F	2025-03-11 11:30:00	VA25A5732-007	4.80	0.000005	0.000005	28.4	26.5	0.284	0.276	11.00	11.50	0.000005	0.000005	0.00005	0.00005	0.00015	0.00057
WQ-14F	2025-04-22 09:00:00	VA25A9398-007	4.70	0.000005	0.000005	22.6	23.7	0.249	0.267	11.10	11.50	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-14F	2025-05-20 15:45:00	VA25B2045-007	3.29	0.000005	0.000005	20.4	23.2	0.226	0.232	13.80	15.40	0.000005	0.000005	0.00005	0.00005	0.00015	0.00039
WQ-14F	2025-06-16 11:10:00	VA25B4662-008	3.26	0.000005	0.000005	18.8	19.6	0.236	0.239	10.20	11.10	0.000005	0.000005	0.00005	0.00005	0.00015	0.00059
WQ-14F	2025-07-16 12:00:00	VA25B7664-006	3.65	0.000005	0.000005	17.9	17.3	0.257	0.261	6.34	7.10	0.000005	0.000005	0.00005	0.00005	0.00015	0.00115
WQ-14F	2025-08-13 16:00:00	VA25C0473-005	4.49	0.000005	0.000005	17.7	18.0	0.292	0.276	3.90	4.31	0.000005	0.000005	0.00005	0.00005	0.00015	0.00066
WQ-14F	2025-09-10 11:40:00	VA25C3871-009	4.10	0.000005	0.000005	19.8	18.7	0.289	0.295	3.31	3.54	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-14F	2025-10-14 14:35:00	VA25C7726-001	4.38	0.000005	0.000005	17.7	17.9	0.249	0.254	5.73	6.47	0.000005	0.000005	0.00005	0.00005	0.00015	0.00071
WQ-14F	2025-11-18 11:50:00	VA25D1477-005	4.74	0.000005	0.000005	18.5	18.8	0.247	0.258	10.70	11.90	0.000005	0.000005	0.00005	0.00005	0.00015	0.00056
WQ-14F	2025-12-16 11:45:00	VA25D4009-007	4.91	0.000005	0.000005	19.8	24.2	0.297	0.306	14.80	16.30	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015

Notes:

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4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

			Metals								Nutrients					Selenium Species			
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved	Methylselenic acid (MeSe)-Dissolved	Selenate (Se[VI])-Dissolved	Selenite (Se[IV])-Dissolved	Selenocyanate (SeCN)-Dissolved
	Detection Limit		0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002	0.0001	0.0001	0.0001	0.0001
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	0.0141	-	-	-	1.3100	3.0000	0.0200	-	-	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.016500	-	-	0.0578	-	-	-	6.7900	32.8000	0.0600	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-	-	-	-	-
	Permit-15335		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code																	
WQ-14F	2025-01-12 15:30:00	VA25A0822-007	0.000202	0.000219	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0242	0.0982	0.0005	0.0005	0.0039	-	-	-	-
WQ-14F	2025-02-12 16:40:00	VA25A3370-013	0.000276	0.000305	0.00025	0.00025	0.0018	0.0015	0.0001	0.0001	0.0751	0.1360	0.0005	0.0005	0.0093	-	0.00386	0.00005	0.00005
WQ-14F	2025-03-11 11:30:00	VA25A5732-007	0.000299	0.000302	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.1340	0.0005	0.0005	0.0038	-	-	-	-
WQ-14F	2025-04-22 09:00:00	VA25A9398-007	0.000216	0.000213	0.00025	0.00025	0.0035	0.0039	0.0001	0.0001	0.0025	0.1190	0.0005	0.0005	0.0114	-	-	-	-
WQ-14F	2025-05-20 15:45:00	VA25B2045-007	0.000106	0.000119	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0061	0.0080	0.0005	0.0005	0.0071	-	-	-	-
WQ-14F	2025-06-16 11:10:00	VA25B4662-008	0.000095	0.000090	0.00025	0.00054	0.0005	0.0015	0.0001	0.0001	0.0025	0.0025	0.0005	0.0005	0.0024	0.00005	0.00087	0.00050	0.00005
WQ-14F	2025-07-16 12:00:00	VA25B7664-006	0.000109	0.000110	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0056	0.0112	0.0005	0.0027	0.0053	-	-	-	-
WQ-14F	2025-08-13 16:00:00	VA25C0473-005	0.000117	0.000130	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0077	0.0180	0.0005	0.0005	0.0046	-	0.00026	0.00038	0.00005
WQ-14F	2025-09-10 11:40:00	VA25C3871-009	0.000186	0.000185	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0251	0.0005	0.0014	0.0044	-	-	-	-
WQ-14F	2025-10-14 14:35:00	VA25C7726-001	0.000124	0.000125	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0058	0.0182	0.0005	0.0005	0.0028	-	0.00067	0.00031	0.00005
WQ-14F	2025-11-18 11:50:00	VA25D1477-005	0.000096	0.000106	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0073	0.0254	0.0005	0.0005	0.0028	-	-	-	-
WQ-14F	2025-12-16 11:45:00	VA25D4009-007	0.000143	0.000141	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0080	0.0380	0.0005	0.0005	0.0040	-	-	-	-

Notes:

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4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

	Carbon Content	Conventional Variables					Major Ions							Metals	
	Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309.00	-	0.1782
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.361	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.66	283	-	0.54	8.05	6.98	112	-	-	0.077	102	104	8.87	0.00160	0.0071
Mean	4.66	330	-	1.51	8.26	7.50	149	-	-	0.093	134	133	27.91	0.00446	0.0224
Median	4.65	316	-	1.18	8.27	7.61	148	-	-	0.088	134	136	32.15	0.00430	0.0212
Maximum	5.71	429	-	5.53	8.53	7.89	192	-	-	0.111	173	170	44.80	0.00830	0.0524
25th percentile	4.34	300	-	0.94	8.14	7.34	138	-	-	0.087	127	123	18.90	0.00240	0.0123
75th percentile	5.10	349	-	1.46	8.34	7.71	162	-	-	0.101	145	144	35.42	0.00548	0.0262
95th percentile	5.53	399	-	3.59	8.47	7.81	182	-	-	0.109	160	158	43.15	0.00802	0.0474
Standard deviation	0.62	42	-	1.33	0.15	0.29	23	-	-	0.013	19	19	12.00	0.00219	0.0138
Standard error	0.18	12	-	0.38	0.04	0.08	7	-	-	0.006	6	5	3.46	0.00063	0.0040
Sample size	12	12	12	12	12	12	12	5	12	5	12	12	12	12	12
Number of non-detects	0	0	9	0	0	0	0	5	10	0	0	0	0	0	0
Percentage of non-detects	0.0	0.0	75.0	0.0	0.0	0.0	0.0	100.0	83.3	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

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4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0002150	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0006000	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	0.000150	0.00018	0.0413	0.0414	-	-	-	-	-	-	-	-	34.5
Mean	-	-	0.000223	0.00026	0.0457	0.0469	-	-	-	-	-	-	-	-	45.5
Median	-	-	0.000195	0.00024	0.0441	0.0460	-	-	-	-	-	-	-	-	45.4
Maximum	-	-	0.000350	0.00044	0.0601	0.0610	-	-	-	-	-	-	-	-	58.0
25th percentile	-	-	0.000171	0.00020	0.0423	0.0439	-	-	-	-	-	-	-	-	42.7
75th percentile	-	-	0.000252	0.00029	0.0469	0.0486	-	-	-	-	-	-	-	-	49.1
95th percentile	-	-	0.000345	0.00042	0.0547	0.0548	-	-	-	-	-	-	-	-	54.3
Standard deviation	-	-	0.000069	0.00008	0.0054	0.0052	-	-	-	-	-	-	-	-	6.4
Standard error	-	-	0.000020	0.00002	0.0015	0.0015	-	-	-	-	-	-	-	-	1.8
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	12	12	0	0	0	0	12	12	12	12	12	12	12	10	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83.3	0.0

Notes:

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4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00051	-	0.000607	-	-	-	-	0.004395	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.003725	-	0.350	1.0000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	35.0	-	-	-	-	0.000460	0.000540	0.005	0.0436	-	-	-	-	3.83	3.94
Mean	45.1	-	-	-	-	0.000703	0.000804	0.052	0.1240	-	-	-	-	5.04	4.93
Median	45.8	-	-	-	-	0.000752	0.000852	0.044	0.1325	-	-	-	-	5.20	4.86
Maximum	57.0	-	-	-	-	0.000900	0.001010	0.121	0.1920	-	-	-	-	6.79	6.65
25th percentile	41.7	-	-	-	-	0.000565	0.000675	0.036	0.0790	-	-	-	-	4.60	4.43
75th percentile	49.8	-	-	-	-	0.000805	0.000932	0.071	0.1632	-	-	-	-	5.43	5.25
95th percentile	53.3	-	-	-	-	0.000889	0.000977	0.101	0.1821	-	-	-	-	6.15	6.26
Standard deviation	6.4	-	-	-	-	0.000157	0.000159	0.034	0.0498	-	-	-	-	0.83	0.82
Standard error	1.8	-	-	-	-	0.000045	0.000046	0.010	0.0144	-	-	-	-	0.24	0.24
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	12	12	12	12	0	0	2	0	12	12	12	12	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	0.0	0.0	16.7	0.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

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0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
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Table A2.16 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	1.05380	-	0.0012500	-	7.60000	0.00250	-	-	-	-	-	-	0.00200	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.66404	-	-	-	46.00000	0.04000	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01000	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Minimum	0.00233	0.00389	-	-	0.000964	0.00102	-	-	-	-	0.170	0.187	0.000894	0.00100	3.11
Mean	0.00604	0.01767	-	-	0.001650	0.00169	-	-	-	-	0.480	0.481	0.001964	0.00203	4.20
Median	0.00564	0.01510	-	-	0.001735	0.00174	-	-	-	-	0.470	0.475	0.001445	0.00139	4.32
Maximum	0.01280	0.03150	-	-	0.002380	0.00246	-	-	-	-	1.080	1.020	0.004910	0.00527	4.96
25th percentile	0.00322	0.01190	-	-	0.001393	0.00137	-	-	-	-	0.349	0.351	0.001208	0.00131	3.81
75th percentile	0.00706	0.02720	-	-	0.001973	0.00198	-	-	-	-	0.576	0.584	0.002075	0.00225	4.75
95th percentile	0.01192	0.03045	-	-	0.002226	0.00228	-	-	-	-	0.823	0.799	0.004178	0.00432	4.95
Standard deviation	0.00334	0.00958	-	-	0.000460	0.00046	-	-	-	-	0.243	0.230	0.001257	0.00131	0.67
Standard error	0.00096	0.00277	-	-	0.000133	0.00013	-	-	-	-	0.070	0.066	0.000363	0.00038	0.19
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	12	12	0	0	12	12	12	12	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

501	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.26	-	-	17.7	17.3	0.226	0.232	3.31	3.54	-	-	-	-	-	0.00015
Mean	4.41	-	-	20.8	21.2	0.271	0.274	9.77	10.41	-	-	-	-	-	0.00051
Median	4.60	-	-	19.8	20.8	0.264	0.268	10.85	11.50	-	-	-	-	-	0.00056
Maximum	5.35	-	-	28.4	26.5	0.351	0.362	14.80	16.30	-	-	-	-	-	0.00115
25th percentile	3.99	-	-	18.4	18.5	0.248	0.257	6.19	6.94	-	-	-	-	-	0.00015
75th percentile	4.83	-	-	22.5	23.8	0.290	0.281	12.68	12.65	-	-	-	-	-	0.00067
95th percentile	5.32	-	-	26.7	25.2	0.321	0.331	14.41	15.80	-	-	-	-	-	0.00101
Standard deviation	0.71	-	-	3.4	3.1	0.034	0.035	3.99	4.14	-	-	-	-	-	0.00033
Standard error	0.20	-	-	1.0	0.9	0.010	0.010	1.15	1.19	-	-	-	-	-	0.00009
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	12	12	0	0	0	0	0	0	12	12	12	12	12	4
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	33.3

Notes:

501	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.16 (Cont'd.)

	Metals								Nutrients					Selenium Species			
	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved	Methylselenic acid (MeSe)-Dissolved	Selenate (Se[VI])-Dissolved	Selenite (Se[IV])-Dissolved	Selenocyanate (SeCN)-Dissolved
Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002	0.0001	0.0001	0.0001	0.0001
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0141	-	-	-	1.3100	3.0000	0.0200	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0578	-	-	-	6.7900	32.8000	0.0600	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.000095	0.000090	-	-	-	-	-	-	0.0025	0.0025	-	-	0.0024	-	0.00026	0.00005	-
Mean	0.000164	0.000170	-	-	-	-	-	-	0.0125	0.0528	-	-	0.0052	-	0.00142	0.00031	-
Median	0.000133	0.000135	-	-	-	-	-	-	0.0060	0.0253	-	-	0.0042	-	0.00077	0.00035	-
Maximum	0.000299	0.000305	-	-	-	-	-	-	0.0751	0.1360	-	-	0.0114	-	0.00386	0.00050	-
25th percentile	0.000108	0.000117	-	-	-	-	-	-	0.0025	0.0163	-	-	0.0036	-	0.00057	0.00024	-
75th percentile	0.000206	0.000215	-	-	-	-	-	-	0.0078	0.1034	-	-	0.0058	-	0.00162	0.00041	-
95th percentile	0.000286	0.000303	-	-	-	-	-	-	0.0471	0.1349	-	-	0.0102	-	0.00341	0.00048	-
Standard deviation	0.000071	0.000075	-	-	-	-	-	-	0.0206	0.0525	-	-	0.0028	-	0.00165	0.00019	-
Standard error	0.000020	0.000022	-	-	-	-	-	-	0.0059	0.0152	-	-	0.0008	-	0.00082	0.00010	-
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	1	4	4	4
Number of non-detects	0	0	12	11	10	11	12	12	4	1	12	10	0	1	0	1	4
Percentage of non-detects	0.0	0.0	100.0	91.7	83.3	91.7	100.0	100.0	33.3	8.3	100.0	83.3	0.0	100.0	0.0	25.0	100.0

Notes:

501	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
3	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 2025 Kemess Water Quality Data – (WQ-17).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.0938
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.929	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-17	2025-01-12 15:00:00	VA25A0822-008	1.88	157.0	1.5	0.52	7.81	-	51.7	-	1.22	-	58.7	58.4	21.1	0.00490	0.0116
WQ-17	2025-02-11 14:00:00	VA25A3370-014	1.60	164.0	1.5	0.21	7.93	-	52.8	0.025	1.40	0.127	77.1	71.3	20.4	0.00410	0.0648
WQ-17	2025-03-11 13:20:00	VA25A5732-008	1.38	192.0	1.5	1.05	7.96	-	64.5	-	2.00	-	77.7	81.5	30.6	0.00373	0.0312
WQ-17	2025-04-22 09:30:00	VA25A9398-008	2.10	147.0	1.5	0.83	8.02	-	52.6	-	1.14	-	58.0	58.2	18.8	0.00520	0.0118
WQ-17	2025-05-20 14:40:00	VA25B2045-008	6.87	72.0	1.5	2.16	7.61	-	28.8	-	0.25	-	30.3	30.5	6.6	0.04620	0.1170
WQ-17	2025-06-18 15:20:00	VA25B5014-006	2.36	86.8	1.5	0.44	7.61	-	31.0	0.025	0.25	0.045	36.5	36.2	12.1	0.01940	0.0740
WQ-17	2025-07-15 13:44:00	VA25B7598-005	3.22	87.3	1.5	0.76	7.43	-	32.1	-	0.25	-	36.2	34.8	10.8	0.01860	0.0443
WQ-17	2025-08-11 15:20:00	VA25C0242-003	3.20	128.0	4.6	1.19	7.73	-	45.6	-	0.86	-	51.3	52.0	17.4	0.01250	0.0812
WQ-17	2025-09-10 14:35:00	VA25C3871-010	1.39	156.0	1.5	0.91	7.90	7.9	55.8	-	1.08	-	60.0	62.0	19.8	0.00460	0.1700
WQ-17	2025-10-16 14:00:00	VA25C7946-013	1.89	128.0	1.5	0.32	7.60	-	43.6	-	0.72	-	50.3	55.8	18.3	0.00710	0.0131
WQ-17	2025-11-19 08:45:00	VA25D1477-006	2.27	117.0	1.5	0.37	7.68	-	42.4	0.025	0.69	0.078	51.4	51.7	16.3	0.00900	0.0223
WQ-17	2025-12-16 10:10:00	VA25D4009-008	1.80	134.0	1.5	0.50	7.73	-	46.7	0.025	1.00	0.090	56.9	58.0	19.7	0.00510	0.0282

Notes:

490	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

			Metals														
			Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
	Detection Limit		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	0.07400	-	0.005000	-	-	-	-	-	-	-	1.200	0.0000880	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0001720	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-17	2025-01-12 15:00:00	VA25A0822-008	0.00005	0.00005	0.000250	0.000280	0.01740	0.0174	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000058	0.00000250	19.9
WQ-17	2025-02-11 14:00:00	VA25A3370-014	0.00005	0.00005	0.000260	0.000330	0.02130	0.0214	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000071	0.00000500	26.4
WQ-17	2025-03-11 13:20:00	VA25A5732-008	0.00005	0.00005	0.000301	0.000337	0.02090	0.0204	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000750	26.3
WQ-17	2025-04-22 09:30:00	VA25A9398-008	0.00005	0.00005	0.000180	0.000210	0.01660	0.0166	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000250	19.6
WQ-17	2025-05-20 14:40:00	VA25B2045-008	0.00005	0.00005	0.000160	0.000220	0.00933	0.0107	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000250	10.1
WQ-17	2025-06-18 15:20:00	VA25B5014-006	0.00005	0.00005	0.000520	0.000620	0.01310	0.0133	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000500	12.8
WQ-17	2025-07-15 13:44:00	VA25B7598-005	0.00005	0.00005	0.000280	0.000320	0.01170	0.0120	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000052	0.00000250	12.6
WQ-17	2025-08-11 15:20:00	VA25C0242-003	0.00005	0.00005	0.000410	0.000460	0.01700	0.0172	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000065	0.00000780	17.9
WQ-17	2025-09-10 14:35:00	VA25C3871-010	0.00005	0.00005	0.000230	0.000390	0.02480	0.0263	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000875	20.9
WQ-17	2025-10-16 14:00:00	VA25C7946-013	0.00005	0.00005	0.000300	0.000310	0.01410	0.0156	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000540	17.3
WQ-17	2025-11-19 08:45:00	VA25D1477-006	0.00005	0.00005	0.000190	0.000200	0.01390	0.0146	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.00000500	17.4
WQ-17	2025-12-16 10:10:00	VA25D4009-008	0.00005	0.00005	0.000160	0.000220	0.01630	0.0170	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.00000500	19.7

Notes:

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10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

			Metals														
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
	Detection Limit		0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	0.00039	-	0.000248	-	-	-	-	0.002198	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	0.001557	-	0.3500	1.000	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-17	2025-01-12 15:00:00	VA25A0822-008	19.8	0.00025	0.00025	0.00005	0.00005	0.000590	0.00079	0.0700	0.103	0.000025	0.000025	0.0005	0.0005	2.19	2.18
WQ-17	2025-02-11 14:00:00	VA25A3370-014	24.6	0.00025	0.00025	0.00005	0.00005	0.000530	0.00070	0.0530	0.180	0.000025	0.000025	0.0005	0.0005	2.71	2.40
WQ-17	2025-03-11 13:20:00	VA25A5732-008	28.0	0.00025	0.00025	0.00005	0.00005	0.000546	0.00124	0.0557	0.121	0.000025	0.000025	0.0005	0.0005	2.93	2.82
WQ-17	2025-04-22 09:30:00	VA25A9398-008	19.8	0.00025	0.00025	0.00005	0.00005	0.000530	0.00060	0.0980	0.129	0.000025	0.000025	0.0005	0.0005	2.21	2.12
WQ-17	2025-05-20 14:40:00	VA25B2045-008	10.0	0.00025	0.00025	0.00005	0.00005	0.001080	0.00136	0.1160	0.235	0.000025	0.000025	0.0005	0.0005	1.23	1.34
WQ-17	2025-06-18 15:20:00	VA25B5014-006	12.6	0.00025	0.00087	0.00005	0.00005	0.000620	0.00088	0.0220	0.080	0.000025	0.000025	0.0005	0.0005	1.11	1.14
WQ-17	2025-07-15 13:44:00	VA25B7598-005	12.0	0.00025	0.00025	0.00005	0.00005	0.000750	0.00090	0.0440	0.081	0.000025	0.000025	0.0005	0.0005	1.16	1.18
WQ-17	2025-08-11 15:20:00	VA25C0242-003	18.2	0.00025	0.00025	0.00005	0.00005	0.000760	0.00093	0.0330	0.118	0.000025	0.000025	0.0005	0.0005	1.61	1.58
WQ-17	2025-09-10 14:35:00	VA25C3871-010	21.6	0.00025	0.00025	0.00005	0.00012	0.000510	0.00096	0.0050	0.188	0.000025	0.000058	0.0005	0.0005	1.90	1.95
WQ-17	2025-10-16 14:00:00	VA25C7946-013	19.3	0.00025	0.00025	0.00005	0.00005	0.000570	0.00066	0.0350	0.047	0.000025	0.000025	0.0005	0.0005	1.73	1.84
WQ-17	2025-11-19 08:45:00	VA25D1477-006	17.7	0.00025	0.00025	0.00005	0.00005	0.000670	0.00068	0.0620	0.098	0.000025	0.000025	0.0005	0.0005	1.93	1.81
WQ-17	2025-12-16 10:10:00	VA25D4009-008	19.8	0.00025	0.00025	0.00005	0.00005	0.000670	0.00093	0.0510	0.097	0.000025	0.000025	0.0005	0.0005	1.87	2.09

Notes:

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10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.73832	-	0.0012500	-	7.60000	0.00100	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.87391	-	-	-	46.00000	0.01590	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WQ-17 2025-01-12 15:00:00 VA25A0822-008	0.00580	0.00617	0.0000025	0.0000025	0.01260	0.01290	0.00025	0.00025	0.025	0.025	0.398	0.414	0.000244	0.000283	3.63
WQ-17 2025-02-11 14:00:00 VA25A3370-014	0.00643	0.00955	0.0000025	0.0000025	0.01920	**0.01790**	0.00025	0.00025	0.025	0.025	0.524	0.522	0.000242	0.000326	3.68
WQ-17 2025-03-11 13:20:00 VA25A5732-008	0.00620	0.00776	0.0000025	0.0000025	0.01940	**0.01980**	0.00025	0.00025	0.025	0.025	0.553	0.548	0.000343	0.000286	3.86
WQ-17 2025-04-22 09:30:00 VA25A9398-008	0.00695	0.00753	0.0000025	0.0000025	0.00981	0.01060	0.00025	0.00025	0.025	0.025	0.381	0.353	0.000239	0.000172	3.51
WQ-17 2025-05-20 14:40:00 VA25B2045-008	0.00415	0.01020	0.0000025	0.0000025	0.00227	0.00227	0.00025	0.00025	0.025	0.025	0.247	0.268	0.000083	0.000146	3.17
WQ-17 2025-06-18 15:20:00 VA25B5014-006	0.00200	0.00456	0.0000025	0.0000025	0.00389	0.00397	0.00025	0.00025	0.025	0.025	0.233	0.242	0.000229	0.000242	2.88
WQ-17 2025-07-15 13:44:00 VA25B7598-005	0.00384	0.00564	0.0000025	0.0000025	0.00406	0.00419	0.00025	0.00025	0.025	0.025	0.218	0.223	0.000176	0.000255	3.09
WQ-17 2025-08-11 15:20:00 VA25C0242-003	0.00355	0.00828	0.0000025	0.0000025	0.00949	0.00916	0.00025	0.00025	0.025	0.025	0.378	0.330	0.000207	0.000200	3.39
WQ-17 2025-09-10 14:35:00 VA25C3871-010	0.00156	0.01310	0.0000025	0.0000025	0.01170	0.01170	0.00025	0.00025	0.025	0.025	0.554	0.572	0.000221	0.000248	3.18
WQ-17 2025-10-16 14:00:00 VA25C7946-013	0.00300	0.00373	0.0000025	0.0000025	0.00847	0.00950	0.00025	0.00025	0.025	0.025	0.336	0.352	0.000221	0.000226	3.25
WQ-17 2025-11-19 08:45:00 VA25D1477-006	0.00798	0.00874	0.0000025	0.0000025	0.00698	0.00723	0.00025	0.00025	0.025	0.025	0.293	0.286	0.000174	0.000194	3.71
WQ-17 2025-12-16 10:10:00 VA25D4009-008	0.00456	0.00585	0.0000025	0.0000025	0.00898	0.00936	0.00025	0.00025	0.025	0.025	0.337	0.342	0.000323	0.000294	3.74

Notes:

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10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
	Detection Limit		0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-17	2025-01-12 15:00:00	VA25A0822-008	3.74	0.000005	0.000005	5.68	5.42	0.0911	0.0917	7.29	7.32	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-17	2025-02-11 14:00:00	VA25A3370-014	3.93	0.000005	0.000005	7.12	6.96	0.1280	0.1130	8.39	8.28	0.000005	0.000005	0.00005	0.00005	0.00015	0.00279
WQ-17	2025-03-11 13:20:00	VA25A5732-008	3.95	0.000005	0.000005	8.04	8.04	0.1240	0.1220	9.22	9.86	0.000005	0.000005	0.00005	0.00005	0.00015	0.00095
WQ-17	2025-04-22 09:30:00	VA25A9398-008	3.45	0.000005	0.000005	4.90	5.13	0.0818	0.0872	6.02	6.09	0.000005	0.000005	0.00005	0.00011	0.00015	0.00015
WQ-17	2025-05-20 14:40:00	VA25B2045-008	3.48	0.000005	0.000005	1.84	2.10	0.0425	0.0429	2.12	2.34	0.000005	0.000005	0.00005	0.00005	0.00064	0.00300
WQ-17	2025-06-18 15:20:00	VA25B5014-006	3.06	0.000005	0.000005	2.07	2.12	0.0468	0.0484	3.77	3.92	0.000005	0.000005	0.00005	0.00005	0.00015	0.00186
WQ-17	2025-07-15 13:44:00	VA25B7598-005	3.30	0.000005	0.000005	2.10	2.27	0.0478	0.0490	3.45	3.36	0.000005	0.000005	0.00005	0.00005	0.00015	0.00113
WQ-17	2025-08-11 15:20:00	VA25C0242-003	3.38	0.000005	0.000005	4.55	4.08	0.0734	0.0719	5.14	5.46	0.000005	0.000005	0.00005	0.00005	0.00015	0.00233
WQ-17	2025-09-10 14:35:00	VA25C3871-010	3.42	0.000005	0.000005	7.45	6.53	0.0703	0.0731	7.40	7.15	0.000005	0.000005	0.00005	0.00005	0.00015	0.00518
WQ-17	2025-10-16 14:00:00	VA25C7946-013	3.31	0.000005	0.000005	3.67	3.81	0.0710	0.0788	6.18	6.87	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-17	2025-11-19 08:45:00	VA25D1477-006	3.87	0.000005	0.000005	3.57	3.59	0.0669	0.0710	5.04	5.62	0.000005	0.000005	0.00005	0.00005	0.00015	0.00035
WQ-17	2025-12-16 10:10:00	VA25D4009-008	3.88	0.000005	0.000005	4.05	4.89	0.0804	0.0831	6.11	7.03	0.000005	0.000005	0.00005	0.00005	0.00015	0.00075

Notes:

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10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0051	-	-	-	0.9890	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0208	-	-	-	5.1400	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-17	2025-01-12 15:00:00	VA25A0822-008	0.000193	0.000196	0.00025	0.00025	0.0011	0.0015	0.0001	0.0001	0.0025	0.0380	0.0005	0.0005	0.0040
WQ-17	2025-02-11 14:00:00	VA25A3370-014	0.000279	0.000291	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0055	0.0373	0.0005	0.0005	0.0010
WQ-17	2025-03-11 13:20:00	VA25A5732-008	0.000312	0.000293	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0606	0.0005	0.0005	0.0050
WQ-17	2025-04-22 09:30:00	VA25A9398-008	0.000176	0.000178	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0153	0.0005	0.0005	0.0083
WQ-17	2025-05-20 14:40:00	VA25B2045-008	0.000046	0.000052	0.00025	0.00052	0.0005	0.0015	0.0001	0.0001	0.0119	0.0025	0.0005	0.0005	0.0077
WQ-17	2025-06-18 15:20:00	VA25B5014-006	0.000079	0.000084	0.00025	0.00060	0.0005	0.0015	0.0001	0.0001	0.0025	0.0103	0.0005	0.0005	0.0010
WQ-17	2025-07-15 13:44:00	VA25B7598-005	0.000065	0.000065	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0025	0.0005	0.0005	0.0021
WQ-17	2025-08-11 15:20:00	VA25C0242-003	0.000116	0.000119	0.00025	0.00052	0.0005	0.0015	0.0001	0.0001	0.0025	0.0025	0.0005	0.0005	0.0010
WQ-17	2025-09-10 14:35:00	VA25C3871-010	0.000048	0.000062	0.00025	0.00070	0.0005	0.0015	0.0001	0.0001	0.0060	0.0089	0.0005	0.0005	0.0024
WQ-17	2025-10-16 14:00:00	VA25C7946-013	0.000125	0.000136	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0063	0.0005	0.0005	0.0021
WQ-17	2025-11-19 08:45:00	VA25D1477-006	0.000109	0.000119	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0132	0.0005	0.0005	0.0010
WQ-17	2025-12-16 10:10:00	VA25D4009-008	0.000124	0.000128	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0249	0.0005	0.0005	0.0028

Notes:

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10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

	Carbon Content	Conventional Variables					Major Ions							Metals	
	Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.0938
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.929	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	1.38	72.0	-	0.21	7.43	7.9	28.8	-	0.25	0.045	30.3	30.5	6.6	0.00373	0.0116
Mean	2.50	130.8	-	0.77	7.75	7.9	45.6	-	0.90	0.085	53.7	54.2	17.7	0.01170	0.0558
Median	2.00	131.0	-	0.64	7.73	7.9	46.2	-	0.93	0.084	54.1	56.9	18.6	0.00615	0.0378
Maximum	6.87	192.0	-	2.16	8.02	7.9	64.5	-	2.00	0.127	77.7	81.5	30.6	0.04620	0.1700
25th percentile	1.75	109.6	-	0.42	7.61	7.9	39.8	-	0.58	0.070	46.8	47.8	15.3	0.00482	0.0200
75th percentile	2.57	156.2	-	0.95	7.91	7.9	52.7	-	1.16	0.099	59.0	59.3	20.0	0.01403	0.0758
95th percentile	4.86	176.6	-	1.63	7.99	7.9	59.7	-	1.67	0.121	77.4	75.9	25.4	0.03146	0.1408
Standard deviation	1.50	35.6	-	0.53	0.18	-	10.8	-	0.52	0.034	14.7	14.8	6.0	0.01217	0.0488
Standard error	0.43	10.3	-	0.15	0.05	-	3.1	-	0.15	0.017	4.3	4.3	1.7	0.00351	0.0141
Sample size	12	12	12	12	12	1	12	4	12	4	12	12	12	12	12
Number of non-detects	0	0	11	0	0	0	0	4	3	0	0	0	0	0	0
Percentage of non-detects	0.0	0.0	91.7	0.0	0.0	0.0	0.0	100.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

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10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
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0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.005000	-	-	-	-	-	-	-	1.200	0.0000880	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0001720	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	0.000160	0.000200	0.00933	0.0107	-	-	-	-	-	-	-	-	10.1
Mean	-	-	0.000270	0.000325	0.01637	0.0169	-	-	-	-	-	-	-	-	18.4
Median	-	-	0.000255	0.000315	0.01645	0.0168	-	-	-	-	-	-	-	-	18.8
Maximum	-	-	0.000520	0.000620	0.02480	0.0263	-	-	-	-	-	-	-	-	26.4
25th percentile	-	-	0.000188	0.000220	0.01370	0.0143	-	-	-	-	-	-	-	-	16.2
75th percentile	-	-	0.000300	0.000350	0.01827	0.0181	-	-	-	-	-	-	-	-	20.1
95th percentile	-	-	0.000459	0.000532	0.02287	0.0236	-	-	-	-	-	-	-	-	26.3
Standard deviation	-	-	0.000107	0.000122	0.00438	0.0043	-	-	-	-	-	-	-	-	5.0
Standard error	-	-	0.000031	0.000035	0.00126	0.0012	-	-	-	-	-	-	-	-	1.4
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	12	12	0	0	0	0	12	12	12	12	12	12	8	10	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	66.7	83.3	0.0

Notes:

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0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
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12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.000248	-	-	-	-	0.002198	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.001557	-	0.3500	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	10.0	-	-	-	-	0.000510	0.00060	0.0050	0.047	-	-	-	-	1.11	1.14
Mean	18.6	-	-	-	-	0.000652	0.00089	0.0537	0.123	-	-	-	-	1.88	1.87
Median	19.6	-	-	-	-	0.000605	0.00089	0.0520	0.110	-	-	-	-	1.89	1.90
Maximum	28.0	-	-	-	-	0.001080	0.00136	0.1160	0.235	-	-	-	-	2.93	2.82
25th percentile	16.4	-	-	-	-	0.000542	0.00070	0.0345	0.093	-	-	-	-	1.52	1.52
75th percentile	20.2	-	-	-	-	0.000690	0.00094	0.0640	0.142	-	-	-	-	2.20	2.14
95th percentile	26.1	-	-	-	-	0.000904	0.00129	0.1061	0.209	-	-	-	-	2.81	2.59
Standard deviation	5.2	-	-	-	-	0.000159	0.00023	0.0308	0.053	-	-	-	-	0.57	0.50
Standard error	1.5	-	-	-	-	0.000046	0.00007	0.0089	0.015	-	-	-	-	0.17	0.14
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	12	11	12	11	0	0	1	0	12	11	12	12	0	0
Percentage of non-detects	0.0	100.0	91.7	100.0	91.7	0.0	0.0	8.3	0.0	100.0	91.7	100.0	100.0	0.0	0.0

Notes:

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0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.73832	-	0.0012500	-	7.60000	0.00100	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.87391	-	-	-	46.00000	0.01590	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Minimum	0.00156	0.00373	-	-	0.00227	0.00227	-	-	-	-	0.218	0.223	0.000083	0.000146	2.88
Mean	0.00467	0.00759	-	-	0.00974	0.00988	-	-	-	-	0.371	0.371	0.000225	0.000239	3.42
Median	0.00435	0.00765	-	-	0.00924	0.00943	-	-	-	-	0.358	0.347	0.000225	0.000245	3.45
Maximum	0.00798	0.01310	-	-	0.01940	0.01980	-	-	-	-	0.554	0.572	0.000343	0.000326	3.86
25th percentile	0.00341	0.00580	-	-	0.00625	0.00647	-	-	-	-	0.281	0.281	0.000199	0.000198	3.18
75th percentile	0.00626	0.00894	-	-	0.01192	0.01200	-	-	-	-	0.430	0.441	0.000242	0.000284	3.69
95th percentile	0.00741	0.01150	-	-	0.01929	0.01876	-	-	-	-	0.553	0.559	0.000332	0.000308	3.79
Standard deviation	0.00202	0.00262	-	-	0.00545	0.00530	-	-	-	-	0.120	0.119	0.000067	0.000054	0.31
Standard error	0.00058	0.00076	-	-	0.00157	0.00153	-	-	-	-	0.035	0.034	0.000019	0.000016	0.09
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	12	12	0	0	12	12	12	12	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

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0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.06	-	-	1.84	2.10	0.0425	0.0429	2.12	2.34	-	-	-	-	-	0.00015
Mean	3.56	-	-	4.59	4.58	0.0770	0.0777	5.84	6.11	-	-	-	-	-	0.00157
Median	3.46	-	-	4.30	4.48	0.0722	0.0759	6.06	6.48	-	-	-	-	-	0.00104
Maximum	3.95	-	-	8.04	8.04	0.1280	0.1220	9.22	9.86	-	-	-	-	-	0.00518
25th percentile	3.36	-	-	3.20	3.26	0.0621	0.0655	4.72	5.07	-	-	-	-	-	0.00030
75th percentile	3.87	-	-	6.04	5.70	0.0841	0.0883	7.32	7.19	-	-	-	-	-	0.00245
95th percentile	3.94	-	-	7.72	7.45	0.1258	0.1170	8.76	8.99	-	-	-	-	-	0.00398
Standard deviation	0.30	-	-	2.13	1.95	0.0273	0.0243	2.08	2.13	-	-	-	-	-	0.00154
Standard error	0.09	-	-	0.62	0.56	0.0079	0.0070	0.60	0.62	-	-	-	-	-	0.00044
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	12	12	0	0	0	0	0	0	12	12	12	11	11	3
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	91.7	91.7	25.0

Notes:

490	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.17 (Cont'd.)

	Metals								Nutrients				
	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0051	-	-	-	0.9890	3.0000	0.0200	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0208	-	-	-	5.1400	32.8000	0.0600	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.000046	0.000052	-	-	-	-	-	-	-	0.0025	-	-	0.0010
Mean	0.000139	0.000144	-	-	-	-	-	-	-	0.0185	-	-	0.0032
Median	0.000120	0.000123	-	-	-	-	-	-	-	0.0118	-	-	0.0022
Maximum	0.000312	0.000293	-	-	-	-	-	-	-	0.0606	-	-	0.0083
25th percentile	0.000075	0.000079	-	-	-	-	-	-	-	0.0053	-	-	0.0010
75th percentile	0.000180	0.000182	-	-	-	-	-	-	-	0.0280	-	-	0.0043
95th percentile	0.000294	0.000292	-	-	-	-	-	-	-	0.0482	-	-	0.0080
Standard deviation	0.000086	0.000082	-	-	-	-	-	-	-	0.0182	-	-	0.0026
Standard error	0.000025	0.000024	-	-	-	-	-	-	-	0.0053	-	-	0.0007
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	12	8	11	12	12	12	9	3	12	12	4
Percentage of non-detects	0.0	0.0	100.0	66.7	91.7	100.0	100.0	100.0	75.0	25.0	100.0	100.0	33.3

Notes:

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10	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
2	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
12	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 2025 Kemess Water Quality Data – (WQ-18).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.05790
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.962	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-18	2025-01-12 13:35:00	VA25A0822-009	2.84	142.0	1.5	0.45	7.82	-	48.8	-	0.94	-	56.2	52.2	18.40	0.00450	0.00910
WQ-18	2025-02-10 08:40:00	VA25A3370-015	1.81	163.0	1.5	0.48	7.78	-	55.3	0.025	1.32	0.106	71.0	65.0	21.90	0.00420	0.01020
WQ-18	2025-03-11 10:10:00	VA25A5732-009	1.22	156.0	1.5	0.51	7.84	-	54.5	-	1.37	-	62.0	67.2	22.90	0.00506	0.00813
WQ-18	2025-04-23 08:15:00	VA25A9398-009	2.06	156.0	1.5	0.05	8.03	-	56.1	-	1.16	-	59.1	60.3	20.40	0.00460	0.01210
WQ-18	2025-05-20 14:15:00	VA25B2045-009	6.92	74.8	1.5	1.72	7.62	-	29.5	-	0.25	-	30.6	32.1	7.08	0.05440	0.09760
WQ-18	2025-06-18 10:45:00	VA25B5014-007	3.25	113.0	3.6	0.58	7.61	-	29.8	0.025	0.89	0.062	39.6	40.0	23.20	0.02070	0.07900
WQ-18	2025-07-16 09:55:00	VA25B7664-005	3.29	87.9	1.5	0.64	7.70	-	32.6	-	0.25	-	39.1	38.0	11.90	0.01860	0.05690
WQ-18	2025-08-11 14:07:00	VA25C0242-004	3.19	150.0	11.4	2.33	7.72	-	43.2	-	1.44	-	54.2	57.5	30.10	0.01390	0.31700
WQ-18	2025-09-10 08:30:00	VA25C3871-011	1.97	202.0	1.5	0.33	8.04	6.8	50.9	-	2.23	-	71.3	70.5	42.40	0.00450	0.01210
WQ-18	2025-10-16 10:45:00	VA25C7726-011	2.55	183.0	5.7	0.48	7.80	-	43.9	-	1.87	-	62.4	65.9	40.90	0.00890	0.01610
WQ-18	2025-11-19 11:40:00	VA25D1477-007	2.48	120.0	1.5	0.69	7.68	-	43.3	0.025	0.69	0.076	51.3	54.2	16.50	0.00990	0.02000
WQ-18	2025-12-16 10:45:00	VA25D4009-009	1.91	133.0	1.5	0.50	7.71	-	46.9	0.025	0.88	0.078	55.5	56.4	18.20	0.00530	0.01800

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.005000	-	-	-	-	-	-	-	1.200	0.0000880	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0001740	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**													
WQ-18	2025-01-12 13:35:00	VA25A0822-009	0.00005	0.00005	0.000190	0.000200	0.01710	0.0168	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	19.0
WQ-18	2025-02-10 08:40:00	VA25A3370-015	0.00005	0.00005	0.000200	0.000220	0.02060	0.0201	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000080	0.0000050	23.9
WQ-18	2025-03-11 10:10:00	VA25A5732-009	0.00005	0.00005	0.000193	0.000217	0.01840	0.0176	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.0000050	20.8
WQ-18	2025-04-23 08:15:00	VA25A9398-009	0.00005	0.00005	0.000170	0.000210	0.01750	0.0187	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000054	19.9
WQ-18	2025-05-20 14:15:00	VA25B2045-009	0.00005	0.00005	0.000170	0.000200	0.00982	0.0107	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	10.2
WQ-18	2025-06-18 10:45:00	VA25B5014-007	0.00012	0.00015	0.000400	0.000460	0.01240	0.0127	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000068	0.0000050	13.8
WQ-18	2025-07-16 09:55:00	VA25B7664-005	0.00005	0.00005	0.000300	0.000340	0.01240	0.0125	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000061	13.5
WQ-18	2025-08-11 14:07:00	VA25C0242-004	0.00013	0.00014	0.000420	0.000550	0.01600	0.0195	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000094	18.9
WQ-18	2025-09-10 08:30:00	VA25C3871-011	0.00016	0.00016	0.000370	0.000410	0.01900	0.0181	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.0000050	25.0
WQ-18	2025-10-16 10:45:00	VA25C7726-011	0.00018	0.00018	0.000380	0.000380	0.01650	0.0174	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.0000586	21.7
WQ-18	2025-11-19 11:40:00	VA25D1477-007	0.00005	0.00005	0.000190	0.000200	0.01460	0.0145	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.0000025	17.3
WQ-18	2025-12-16 10:45:00	VA25D4009-009	0.00005	0.00005	0.000170	0.000200	0.01540	0.0166	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000050	0.0000054	19.2

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

			Metals														
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
	Detection Limit		0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	0.00039	-	0.000200	-	-	-	-	0.002070	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	0.000200	-	0.3500	1.000	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-18	2025-01-12 13:35:00	VA25A0822-009	17.5	0.00025	0.00025	0.00005	0.00005	0.000590	0.00057	0.0720	0.106	0.000025	0.000025	0.0005	0.0005	2.13	2.06
WQ-18	2025-02-10 08:40:00	VA25A3370-015	22.2	0.00025	0.00025	0.00005	0.00005	0.000790	0.00099	0.0640	0.104	0.000025	0.000025	0.0005	0.0005	2.75	2.33
WQ-18	2025-03-11 10:10:00	VA25A5732-009	23.1	0.00025	0.00025	0.00005	0.00005	0.000404	0.00025	0.0644	0.104	0.000025	0.000025	0.0005	0.0005	2.45	2.30
WQ-18	2025-04-23 08:15:00	VA25A9398-009	20.4	0.00025	0.00025	0.00005	0.00005	0.000570	0.00062	0.1050	0.140	0.000025	0.000025	0.0005	0.0005	2.28	2.27
WQ-18	2025-05-20 14:15:00	VA25B2045-009	10.7	0.00025	0.00025	0.00005	0.00005	0.001080	0.00128	0.1150	0.215	0.000025	0.000025	0.0005	0.0005	1.26	1.31
WQ-18	2025-06-18 10:45:00	VA25B5014-007	13.9	0.00025	0.00025	0.00005	0.00005	0.000760	0.00101	0.0360	0.099	0.000025	0.000025	0.0005	0.0005	1.24	1.28
WQ-18	2025-07-16 09:55:00	VA25B7664-005	13.1	0.00025	0.00025	0.00005	0.00005	0.000820	0.00083	0.0460	0.102	0.000025	0.000025	0.0005	0.0005	1.32	1.29
WQ-18	2025-08-11 14:07:00	VA25C0242-004	20.1	0.00025	0.00052	0.00005	0.00022	0.000820	0.00167	0.0540	0.432	0.000025	0.000091	0.0005	0.0005	1.70	1.77
WQ-18	2025-09-10 08:30:00	VA25C3871-011	24.6	0.00025	0.00025	0.00005	0.00005	0.000630	0.00067	0.0430	0.058	0.000025	0.000025	0.0005	0.0005	2.15	2.20
WQ-18	2025-10-16 10:45:00	VA25C7726-011	22.9	0.00025	0.00025	0.00005	0.00005	0.000670	0.00074	0.0420	0.068	0.000025	0.000025	0.0005	0.0005	2.00	2.12
WQ-18	2025-11-19 11:40:00	VA25D1477-007	18.6	0.00025	0.00025	0.00005	0.00005	0.000650	0.00065	0.0610	0.097	0.000025	0.000025	0.0005	0.0005	1.97	1.89
WQ-18	2025-12-16 10:45:00	VA25D4009-009	19.1	0.00025	0.00025	0.00005	0.00005	0.000620	0.00077	0.0570	0.100	0.000025	0.000025	0.0005	0.0005	1.83	2.11

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.73964	-	0.0012500	-	7.60000	0.00110	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.87721	-	-	-	46.00000	0.01870	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code													
WQ-18	2025-01-12 13:35:00	VA25A0822-009	0.00926	0.00910	0.0000025	0.0000025	0.00839	0.00830	0.00025	0.00025	0.025	0.025	0.353	0.349	0.000196	0.000234	3.65
WQ-18	2025-02-10 08:40:00	VA25A3370-015	0.01080	0.01080	0.0000025	0.0000025	0.01250	0.01180	0.00025	0.00025	0.025	0.025	0.485	0.466	0.000260	0.000224	3.94
WQ-18	2025-03-11 10:10:00	VA25A5732-009	0.00735	0.00806	0.0000025	0.0000025	0.01060	0.01160	0.00025	0.00025	0.025	0.025	0.401	0.391	0.000267	0.000288	3.66
WQ-18	2025-04-23 08:15:00	VA25A9398-009	0.00825	0.00926	0.0000025	0.0000025	0.00829	0.00876	0.00025	0.00025	0.025	0.025	0.391	0.390	0.000493	0.000558	3.54
WQ-18	2025-05-20 14:15:00	VA25B2045-009	0.00436	0.00952	0.0000025	0.0000025	0.00220	0.00230	0.00025	0.00025	0.025	0.025	0.241	0.252	0.000123	0.000163	3.14
WQ-18	2025-06-18 10:45:00	VA25B5014-007	0.00318	0.00684	0.0000025	0.0000025	0.00649	0.00649	0.00025	0.00025	0.025	0.025	0.281	0.294	0.000769	0.000901	2.91
WQ-18	2025-07-16 09:55:00	VA25B7664-005	0.00466	0.00675	0.0000025	0.0000025	0.00416	0.00416	0.00025	0.00025	0.025	0.025	0.222	0.242	0.000150	0.000194	3.16
WQ-18	2025-08-11 14:07:00	VA25C0242-004	0.00449	0.02510	0.0000025	0.0000025	0.01050	0.01040	0.00025	0.00025	0.025	0.025	0.376	0.369	0.000677	0.000748	3.39
WQ-18	2025-09-10 08:30:00	VA25C3871-011	0.00431	0.00470	0.0000025	0.0000025	0.01700	0.01700	0.00025	0.00025	0.025	0.025	0.490	0.467	0.000421	0.000492	3.18
WQ-18	2025-10-16 10:45:00	VA25C7726-011	0.00533	0.00660	0.0000025	0.0000025	0.01400	0.01320	0.00025	0.00025	0.025	0.025	0.373	0.405	0.000985	0.000979	3.18
WQ-18	2025-11-19 11:40:00	VA25D1477-007	0.00948	0.01050	0.0000025	0.0000025	0.00618	0.00666	0.00025	0.00025	0.025	0.025	0.308	0.295	0.000182	0.000190	3.60
WQ-18	2025-12-16 10:45:00	VA25D4009-009	0.00803	0.00955	0.0000025	0.0000025	0.00695	0.00694	0.00025	0.00025	0.025	0.025	0.315	0.321	0.000238	0.000276	3.74

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
	Detection Limit		0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-18	2025-01-12 13:35:00	VA25A0822-009	3.71	0.000005	0.000005	4.94	4.54	0.0820	0.0817	6.47	5.89	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-18	2025-02-10 08:40:00	VA25A3370-015	4.04	0.000005	0.000005	6.01	5.67	0.1090	0.0987	7.57	7.31	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-18	2025-03-11 10:10:00	VA25A5732-009	3.78	0.000005	0.000005	5.82	5.59	0.0941	0.0966	6.88	7.22	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-18	2025-04-23 08:15:00	VA25A9398-009	3.53	0.000005	0.000005	5.55	6.14	0.0853	0.0913	6.80	6.75	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-18	2025-05-20 14:15:00	VA25B2045-009	3.32	0.000005	0.000005	2.01	2.22	0.0438	0.0461	2.18	2.34	0.000005	0.000005	0.00005	0.00005	0.00061	0.00202
WQ-18	2025-06-18 10:45:00	VA25B5014-007	3.11	0.000005	0.000005	6.10	6.03	0.0823	0.0813	8.27	7.64	0.000005	0.000005	0.00005	0.00005	0.00015	0.00210
WQ-18	2025-07-16 09:55:00	VA25B7664-005	3.22	0.000005	0.000005	2.52	2.42	0.0511	0.0516	3.74	4.05	0.000005	0.000005	0.00005	0.00005	0.00015	0.00151
WQ-18	2025-08-11 14:07:00	VA25C0242-004	3.77	0.000005	0.000005	8.22	7.43	0.1100	0.1080	9.62	9.63	0.000005	0.000005	0.00005	0.00005	0.00015	0.01360
WQ-18	2025-09-10 08:30:00	VA25C3871-011	3.32	0.000005	0.000005	11.60	10.90	0.1560	0.1550	14.60	14.70	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-18	2025-10-16 10:45:00	VA25C7726-011	3.65	0.000005	0.000005	10.90	10.70	0.1400	0.1350	13.00	14.10	0.000005	0.000005	0.00005	0.00005	0.00015	0.00036
WQ-18	2025-11-19 11:40:00	VA25D1477-007	3.74	0.000005	0.000005	3.87	3.82	0.0683	0.0688	5.13	5.40	0.000005	0.000005	0.00005	0.00005	0.00015	0.00065
WQ-18	2025-12-16 10:45:00	VA25D4009-009	4.10	0.000005	0.000005	3.79	4.66	0.0783	0.0782	5.77	6.79	0.000005	0.000005	0.00005	0.00005	0.00015	0.00035

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0061	-	-	-	1.7500	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0233	-	-	-	9.1200	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-18	2025-01-12 13:35:00	VA25A0822-009	0.000128	0.000130	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0150	0.0299	0.0005	0.0005	0.0030
WQ-18	2025-02-10 08:40:00	VA25A3370-015	0.000182	0.000189	0.00025	0.00025	0.0016	0.0015	0.0001	0.0001	0.0025	0.0406	0.0005	0.0005	0.0030
WQ-18	2025-03-11 10:10:00	VA25A5732-009	0.000183	0.000186	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0055	0.0410	0.0005	0.0005	0.0043
WQ-18	2025-04-23 08:15:00	VA25A9398-009	0.000157	0.000156	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0053	0.0278	0.0005	0.0005	0.0058
WQ-18	2025-05-20 14:15:00	VA25B2045-009	0.000047	0.000049	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0058	0.0025	0.0005	0.0005	0.0051
WQ-18	2025-06-18 10:45:00	VA25B5014-007	0.000168	0.000165	0.00025	0.00056	0.0005	0.0015	0.0001	0.0001	0.0025	0.0477	0.0005	0.0005	0.0022
WQ-18	2025-07-16 09:55:00	VA25B7664-005	0.000069	0.000071	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0025	0.0005	0.0005	0.0050
WQ-18	2025-08-11 14:07:00	VA25C0242-004	0.000220	0.000252	0.00025	0.00114	0.0005	0.0015	0.0001	0.0001	0.0080	0.0178	0.0005	0.0005	0.0010
WQ-18	2025-09-10 08:30:00	VA25C3871-011	0.000346	0.000338	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0116	0.0005	0.0005	0.0010
WQ-18	2025-10-16 10:45:00	VA25C7726-011	0.000301	0.000289	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0405	0.0005	0.0005	0.0010
WQ-18	2025-11-19 11:40:00	VA25D1477-007	0.000096	0.000113	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0097	0.0005	0.0005	0.0010
WQ-18	2025-12-16 10:45:00	VA25D4009-009	0.000097	0.000101	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0051	0.0210	0.0005	0.0005	0.0026

Notes:

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11 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

1 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

	Carbon Content	Conventional Variables					Major Ions							Metals	
	Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.05790
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.962	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	1.22	74.8	-	0.05	7.61	6.8	29.5	-	0.25	0.062	30.6	32.1	7.08	0.00420	0.00813
Mean	2.79	140.1	-	0.73	7.78	6.8	44.6	-	1.11	0.080	54.4	54.9	22.82	0.01288	0.05469
Median	2.51	146.0	-	0.50	7.75	6.8	45.4	-	1.05	0.077	55.9	57.0	21.15	0.00710	0.01705
Maximum	6.92	202.0	-	2.33	8.04	6.8	56.1	-	2.23	0.106	71.3	70.5	42.40	0.05440	0.31700
25th percentile	1.96	118.2	-	0.47	7.70	6.8	40.6	-	0.83	0.072	48.4	49.2	17.77	0.00458	0.01162
75th percentile	3.20	157.8	-	0.65	7.82	6.8	51.8	-	1.39	0.085	62.1	65.2	24.92	0.01508	0.06242
95th percentile	4.92	191.6	-	1.99	8.03	6.8	55.7	-	2.03	0.102	71.1	68.7	41.58	0.03586	0.19633
Standard deviation	1.45	36.9	-	0.64	0.14	-	9.5	-	0.59	0.018	12.6	12.4	10.52	0.01429	0.08798
Standard error	0.42	10.7	-	0.18	0.04	-	2.8	-	0.17	0.009	3.6	3.6	3.04	0.00413	0.02540
Sample size	12	12	12	12	12	1	12	4	12	4	12	12	12	12	12
Number of non-detects	0	0	9	1	0	0	0	4	2	0	0	0	0	0	0
Percentage of non-detects	0.0	0.0	75.0	8.3	0.0	0.0	0.0	100.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

480 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

11 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

1 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.005000	-	-	-	-	-	-	-	1.200	0.0000880	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0001740	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	0.000170	0.000200	0.00982	0.0107	-	-	-	-	-	-	-	-	10.2
Mean	-	-	0.000263	0.000299	0.01581	0.0163	-	-	-	-	-	-	-	-	18.6
Median	-	-	0.000197	0.000218	0.01625	0.0171	-	-	-	-	-	-	-	-	19.1
Maximum	-	-	0.000420	0.000550	0.02060	0.0201	-	-	-	-	-	-	-	-	25.0
25th percentile	-	-	0.000185	0.000200	0.01405	0.0140	-	-	-	-	-	-	-	-	16.4
75th percentile	-	-	0.000372	0.000388	0.01773	0.0183	-	-	-	-	-	-	-	-	21.0
95th percentile	-	-	0.000409	0.000500	0.01972	0.0198	-	-	-	-	-	-	-	-	24.4
Standard deviation	-	-	0.000102	0.000124	0.00310	0.0030	-	-	-	-	-	-	-	-	4.3
Standard error	-	-	0.000030	0.000036	0.00089	0.0009	-	-	-	-	-	-	-	-	1.3
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	8	8	0	0	0	0	12	12	12	12	12	12	10	7	0
Percentage of non-detects	66.7	66.7	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	83.3	58.3	0.0

Notes:

480	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.000200	-	-	-	-	0.002070	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.000200	-	0.3500	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	10.7	-	-	-	-	0.000404	0.00025	0.0360	0.058	-	-	-	-	1.24	1.28
Mean	18.9	-	-	-	-	0.000700	0.00084	0.0633	0.135	-	-	-	-	1.92	1.91
Median	19.6	-	-	-	-	0.000660	0.00076	0.0590	0.103	-	-	-	-	1.98	2.08
Maximum	24.6	-	-	-	-	0.001080	0.00167	0.1150	0.432	-	-	-	-	2.75	2.33
25th percentile	16.6	-	-	-	-	0.000612	0.00064	0.0452	0.098	-	-	-	-	1.60	1.66
75th percentile	22.4	-	-	-	-	0.000798	0.00100	0.0663	0.114	-	-	-	-	2.18	2.22
95th percentile	23.8	-	-	-	-	0.000937	0.00146	0.1095	0.313	-	-	-	-	2.58	2.31
Standard deviation	4.4	-	-	-	-	0.000170	0.00037	0.0244	0.101	-	-	-	-	0.48	0.41
Standard error	1.3	-	-	-	-	0.000049	0.00011	0.0070	0.029	-	-	-	-	0.14	0.12
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	12	11	12	11	0	1	0	0	12	11	12	12	0	0
Percentage of non-detects	0.0	100.0	91.7	100.0	91.7	0.0	8.3	0.0	0.0	100.0	91.7	100.0	100.0	0.0	0.0

Notes:

480	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.73964	-	0.0012500	-	7.60000	0.00110	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.87721	-	-	-	46.00000	0.01870	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Minimum	0.00318	0.00470	-	-	0.00220	0.00230	-	-	-	-	0.222	0.242	0.000123	0.000163	2.91
Mean	0.00662	0.00973	-	-	0.00894	0.00897	-	-	-	-	0.353	0.353	0.000397	0.000437	3.42
Median	0.00634	0.00918	-	-	0.00834	0.00853	-	-	-	-	0.363	0.359	0.000263	0.000282	3.46
Maximum	0.01080	0.02510	-	-	0.01700	0.01700	-	-	-	-	0.490	0.467	0.000985	0.000979	3.94
25th percentile	0.00446	0.00682	-	-	0.00641	0.00662	-	-	-	-	0.301	0.295	0.000192	0.000217	3.18
75th percentile	0.00850	0.00979	-	-	0.01108	0.01165	-	-	-	-	0.394	0.394	0.000539	0.000606	3.65
95th percentile	0.01007	0.01723	-	-	0.01535	0.01491	-	-	-	-	0.487	0.466	0.000866	0.000936	3.83
Standard deviation	0.00252	0.00517	-	-	0.00421	0.00408	-	-	-	-	0.085	0.075	0.000279	0.000294	0.31
Standard error	0.00073	0.00149	-	-	0.00122	0.00118	-	-	-	-	0.024	0.022	0.000081	0.000085	0.09
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	12	12	0	0	12	12	12	12	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

480	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.11	-	-	2.01	2.22	0.0438	0.0461	2.18	2.34	-	-	-	-	-	0.00015
Mean	3.61	-	-	5.94	5.84	0.0917	0.0910	7.50	7.65	-	-	-	-	-	0.00178
Median	3.68	-	-	5.69	5.63	0.0838	0.0865	6.84	7.00	-	-	-	-	-	0.00036
Maximum	4.10	-	-	11.60	10.90	0.1560	0.1550	14.60	14.70	-	-	-	-	-	0.01360
25th percentile	3.32	-	-	3.85	4.36	0.0758	0.0758	5.61	5.77	-	-	-	-	-	0.00015
75th percentile	3.77	-	-	6.63	6.46	0.1092	0.1010	8.61	8.14	-	-	-	-	-	0.00164
95th percentile	4.07	-	-	11.21	10.79	0.1472	0.1440	13.72	14.37	-	-	-	-	-	0.00727
Standard deviation	0.31	-	-	3.00	2.76	0.0330	0.0314	3.55	3.65	-	-	-	-	-	0.00380
Standard error	0.09	-	-	0.87	0.80	0.0095	0.0091	1.03	1.05	-	-	-	-	-	0.00110
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	12	12	0	0	0	0	0	0	12	12	12	12	11	5
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	91.7	41.7

Notes:

480	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.18 (Cont'd.)

	Metals								Nutrients				
	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0061	-	-	-	1.7500	3.0000	0.0200	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0233	-	-	-	9.1200	32.8000	0.0600	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.000047	0.000049	-	-	-	-	-	-	0.0025	0.0025	-	-	0.0010
Mean	0.000166	0.000170	-	-	-	-	-	-	0.0050	0.0244	-	-	0.0029
Median	0.000162	0.000160	-	-	-	-	-	-	0.0038	0.0244	-	-	0.0028
Maximum	0.000346	0.000338	-	-	-	-	-	-	0.0150	0.0477	-	-	0.0058
25th percentile	0.000097	0.000110	-	-	-	-	-	-	0.0025	0.0111	-	-	0.0010
75th percentile	0.000192	0.000205	-	-	-	-	-	-	0.0056	0.0405	-	-	0.0045
95th percentile	0.000321	0.000311	-	-	-	-	-	-	0.0111	0.0440	-	-	0.0054
Standard deviation	0.000090	0.000087	-	-	-	-	-	-	0.0037	0.0159	-	-	0.0018
Standard error	0.000026	0.000025	-	-	-	-	-	-	0.0011	0.0046	-	-	0.0005
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	12	10	11	12	12	12	6	2	12	12	4
Percentage of non-detects	0.0	0.0	100.0	83.3	91.7	100.0	100.0	100.0	50.0	16.7	100.0	100.0	33.3

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 2025 Kemess Water Quality Data – (WQ-EDD).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4		Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3		0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309.0		-	0.1983
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.427	-	-	-		-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Permit-15335	-	-	30.0	-	9.50	9.50	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Location	DateTime	COC Code																
WQ-EDD	2025-01-12 08:30:00	VA25A0822-011	4.21	563	1.5	0.67	8.50	7.68	246	-	0.25	-	227	232	59.7		0.00220	0.0153
WQ-EDD	2025-02-10 14:25:00	VA25A3370-019	4.74	593	4.4	1.31	8.35	8.05	262	0.025	0.25	0.042	279	256	41.2		0.00200	0.0344
WQ-EDD	2025-03-12 11:45:00	VA25A5732-011	2.38	527	1.5	0.68	8.43	7.97	242	-	0.25	-	236	242	57.6		0.00203	0.0197
WQ-EDD	2025-04-22 09:40:00	VA25A9398-011	3.89	466	1.5	1.06	8.50	7.46	207	-	0.25	-	187	179	49.6		0.01110	0.0533
WQ-EDD	2025-05-07 08:15:00	VA25B0755-004	-	361	1.5	2.06	8.17	7.54	147	-	0.25	-	133	-	51.0		-	-
WQ-EDD	2025-05-21 10:20:00	VA25B2045-013	3.19	368	1.5	0.42	8.30	7.69	142	-	0.25	-	133	133	49.3		0.00520	0.0206
WQ-EDD	2025-06-03 09:00:00	VA25B3458-004	-	313	1.5	0.30	8.33	7.56	133	-	0.25	-	132	-	38.6		-	-
WQ-EDD	2025-06-16 16:37:00	VA25B4662-003	3.34	327	3.8	0.50	8.40	7.83	140	0.025	0.25	0.090	126	131	36.1		0.00400	0.0251
WQ-EDD	2025-07-02 09:00:00	VA25B6425-004	-	306	1.5	0.56	8.41	7.65	136	-	0.25	-	124	-	30.5		-	-
WQ-EDD	2025-07-15 14:55:00	VA25B7598-009	2.84	330	1.5	0.82	8.29	7.86	147	-	0.25	-	132	134	32.2		0.00320	0.0156
WQ-EDD	2025-07-27 10:35:00	VA25B8815-004	-	360	4.7	0.94	8.32	7.66	155	-	0.25	-	146	-	36.3		-	-
WQ-EDD	2025-08-13 09:51:00	VA25C0473-009	3.45	364	4.6	1.87	8.32	7.67	162	0.025	0.25	0.086	163	156	39.2		0.00280	0.0774
WQ-EDD	2025-08-25 08:50:00	VA25C1840-004	-	-	4.4	2.86	8.34	7.75	180	-	0.25	-	182	-	42.2		-	-
WQ-EDD	2025-09-09 14:55:00	VA25C3871-015	3.64	462	1.5	1.00	8.50	8.10	204	-	0.25	-	192	193	51.2		0.00370	0.0583
WQ-EDD	2025-09-22 08:20:00	VA25C5315-004	-	427	3.7	1.62	8.47	7.83	177	-	0.25	-	191	-	54.1		-	-
WQ-EDD	2025-10-14 09:45:00	VA25C7527-012	3.10	521	1.5	0.49	8.48	8.37	210	-	0.25	-	214	204	66.7		0.00360	0.0221
WQ-EDD	2025-11-18 11:30:00	VA25D1477-008	2.85	523	1.5	0.29	8.33	7.87	227	0.025	0.25	0.090	215	226	66.1		0.00390	0.0370
WQ-EDD	2025-12-16 14:45:00	VA25D4009-011	2.65	431	57.6	18.50	7.98	7.54	166	0.025	0.25	0.027	225	239	51.7		0.00240	0.0092

Notes:

476	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.074000	-	0.005000	-	-	-	-	-	-	-	1.200	0.0002510	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.250000	-	-	-	-	-	-	-	-	-	-	0.0007460	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-EDD	2025-01-12 08:30:00	VA25A0822-011	0.00005	0.000050	0.000680	0.000750	0.0790	0.0788	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	76.3
WQ-EDD	2025-02-10 14:25:00	VA25A3370-019	0.00005	0.000050	0.000530	0.000610	0.0886	0.0923	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	94.3
WQ-EDD	2025-03-12 11:45:00	VA25A5732-011	0.00005	0.000106	0.000634	0.000692	0.0713	0.0721	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	79.8
WQ-EDD	2025-04-22 09:40:00	VA25A9398-011	0.00014	0.000160	0.000620	0.000720	0.0644	0.0659	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	63.3
WQ-EDD	2025-05-07 08:15:00	VA25B0755-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.1
WQ-EDD	2025-05-21 10:20:00	VA25B2045-013	0.00032	0.000330	0.000960	0.001070	0.0551	0.0551	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	46.0
WQ-EDD	2025-06-03 09:00:00	VA25B3458-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.1
WQ-EDD	2025-06-16 16:37:00	VA25B4662-003	0.00030	0.000310	0.000980	0.001140	0.0550	0.0552	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	43.4
WQ-EDD	2025-07-02 09:00:00	VA25B6425-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43.7
WQ-EDD	2025-07-15 14:55:00	VA25B7598-009	0.00028	0.000300	0.001260	0.001280	0.0548	0.0562	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	46.6
WQ-EDD	2025-07-27 10:35:00	VA25B8815-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.6
WQ-EDD	2025-08-13 09:51:00	VA25C0473-009	0.00020	0.000200	0.001270	0.001410	0.0609	0.0658	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	56.5
WQ-EDD	2025-08-25 08:50:00	VA25C1840-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63.1
WQ-EDD	2025-09-09 14:55:00	VA25C3871-015	0.00017	0.000170	0.001310	0.001460	0.0713	0.0728	0.00001	0.00001	0.000025	0.000025	0.005	0.011	0.0000025	0.0000025	65.8
WQ-EDD	2025-09-22 08:20:00	VA25C5315-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64.2
WQ-EDD	2025-10-14 09:45:00	VA25C7527-012	0.00012	0.000130	0.000710	0.000790	0.0682	0.0702	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	72.9
WQ-EDD	2025-11-18 11:30:00	VA25D1477-008	0.00015	0.000150	0.000660	0.000770	0.0815	0.0833	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	72.6
WQ-EDD	2025-12-16 14:45:00	VA25D4009-011	0.00011	0.000130	0.000580	0.000610	0.0723	0.0775	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	77.8

Notes:

476	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.005	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00056	-	0.001115	-	-	-	-	0.003757	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.006598	-	0.350	1.0000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code														
WQ-EDD	2025-01-12 08:30:00	VA25A0822-011	78.3	0.00025	0.00025	0.00005	0.00005	0.000760	0.000860	0.005	0.0270	0.000025	0.000025	0.0011	0.00110	8.82	8.86
WQ-EDD	2025-02-10 14:25:00	VA25A3370-019	87.2	0.00025	0.00025	0.00005	0.00005	0.000810	0.000950	0.005	0.0540	0.000025	0.000025	0.0011	0.00120	10.60	9.40
WQ-EDD	2025-03-12 11:45:00	VA25A5732-011	81.9	0.00025	0.00025	0.00005	0.00005	0.000632	0.000818	0.005	0.0213	0.000025	0.000025	0.0005	0.00117	9.01	8.99
WQ-EDD	2025-04-22 09:40:00	VA25A9398-011	60.6	0.00025	0.00025	0.00005	0.00005	0.001450	0.001660	0.019	0.0640	0.000025	0.000025	0.0013	0.00130	7.04	6.82
WQ-EDD	2025-05-07 08:15:00	VA25B0755-004	-	-	-	-	-	-	-	-	-	-	-	-	-	4.42	-
WQ-EDD	2025-05-21 10:20:00	VA25B2045-013	46.3	0.00025	0.00025	0.00005	0.00005	0.001600	0.001730	0.005	0.0200	0.000025	0.000025	0.0005	0.00120	4.39	4.27
WQ-EDD	2025-06-03 09:00:00	VA25B3458-004	-	-	-	-	-	-	-	-	-	-	-	-	-	4.17	-
WQ-EDD	2025-06-16 16:37:00	VA25B4662-003	45.3	0.00025	0.00025	0.00005	0.00005	0.001690	0.001820	0.005	0.0280	0.000025	0.000025	0.0005	0.00050	4.35	4.37
WQ-EDD	2025-07-02 09:00:00	VA25B6425-004	-	-	-	-	-	-	-	-	-	-	-	-	-	3.70	-
WQ-EDD	2025-07-15 14:55:00	VA25B7598-009	46.6	0.00025	0.00025	0.00005	0.00005	0.001600	0.001830	0.005	0.0200	0.000025	0.000025	0.0005	0.00050	3.83	4.20
WQ-EDD	2025-07-27 10:35:00	VA25B8815-004	-	-	-	-	-	-	-	-	-	-	-	-	-	4.87	-
WQ-EDD	2025-08-13 09:51:00	VA25C0473-009	54.4	0.00025	0.00025	0.00005	0.00005	0.001370	0.001730	0.011	0.1210	0.000025	0.000025	0.0005	0.00050	5.40	4.82
WQ-EDD	2025-08-25 08:50:00	VA25C1840-004	-	-	-	-	-	-	-	-	-	-	-	-	-	5.85	-
WQ-EDD	2025-09-09 14:55:00	VA25C3871-015	66.3	0.00025	0.00025	0.00005	0.00005	0.001310	0.001640	0.015	0.0990	0.000025	0.000025	0.0012	0.00120	6.73	6.58
WQ-EDD	2025-09-22 08:20:00	VA25C5315-004	-	-	-	-	-	-	-	-	-	-	-	-	-	7.44	-
WQ-EDD	2025-10-14 09:45:00	VA25C7527-012	69.5	0.00025	0.00025	0.00005	0.00005	0.000880	0.001100	0.005	0.0350	0.000025	0.000025	0.0011	0.00050	7.68	7.51
WQ-EDD	2025-11-18 11:30:00	VA25D1477-008	76.9	0.00025	0.00025	0.00005	0.00005	0.001040	0.001210	0.005	0.0520	0.000025	0.000025	0.0012	0.00140	8.29	8.28
WQ-EDD	2025-12-16 14:45:00	VA25D4009-011	80.8	0.00025	0.00025	0.00005	0.00005	0.000790	0.000950	0.005	0.0130	0.000025	0.000025	0.0014	0.00140	7.53	9.00

Notes:

476 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

9 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

1 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

			Metals														
			Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
	Detection Limit		0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	1.15940	-	0.0012500	-	7.60000	0.00240	-	-	-	-	-	-	0.00200	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	1.92852	-	-	-	46.00000	0.03890	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Permit-15335		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-EDD	2025-01-12 08:30:00	VA25A0822-011	0.000610	0.01100	0.0000025	0.0000025	0.00186	0.00185	0.00025	0.00025	0.025	0.025	0.873	0.876	0.001490	0.00128	4.83
WQ-EDD	2025-02-10 14:25:00	VA25A3370-019	0.000310	0.01150	0.0000025	0.0000025	0.00170	0.00171	0.00025	0.00025	0.025	0.025	1.030	1.070	0.000876	0.00104	5.44
WQ-EDD	2025-03-12 11:45:00	VA25A5732-011	0.000334	0.00520	0.0000025	0.0000025	0.00169	0.00172	0.00025	0.00025	0.025	0.025	0.804	0.797	0.000905	0.00090	5.16
WQ-EDD	2025-04-22 09:40:00	VA25A9398-011	0.000730	0.01240	0.0000025	0.0000025	0.00241	0.00263	0.00025	0.00025	0.025	0.025	0.869	0.831	0.002960	0.00250	4.42
WQ-EDD	2025-05-07 08:15:00	VA25B0755-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-05-21 10:20:00	VA25B2045-013	0.000970	0.00294	0.0000025	0.0000025	0.00423	0.00408	0.00025	0.00025	0.025	0.025	0.678	0.655	0.003190	0.00311	2.57
WQ-EDD	2025-06-03 09:00:00	VA25B3458-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-06-16 16:37:00	VA25B4662-003	0.001260	0.00590	0.0000025	0.0000025	0.00318	0.00312	0.00025	0.00025	0.025	0.025	0.609	0.604	0.001380	0.00152	2.39
WQ-EDD	2025-07-02 09:00:00	VA25B6425-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-07-15 14:55:00	VA25B7598-009	0.002040	0.00469	0.0000025	0.0000025	0.00282	0.00298	0.00025	0.00025	0.025	0.025	0.555	0.589	0.001250	0.00128	3.01
WQ-EDD	2025-07-27 10:35:00	VA25B8815-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-08-13 09:51:00	VA25C0473-009	0.004910	0.03560	0.0000025	0.0000025	0.00311	0.00312	0.00025	0.00025	0.025	0.025	0.668	0.699	0.001220	0.00114	3.22
WQ-EDD	2025-08-25 08:50:00	VA25C1840-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-09-09 14:55:00	VA25C3871-015	0.004560	0.03130	0.0000025	0.0000025	0.00312	0.00316	0.00025	0.00025	0.025	0.025	0.928	0.895	0.000980	0.00106	4.13
WQ-EDD	2025-09-22 08:20:00	VA25C5315-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-10-14 09:45:00	VA25C7527-012	0.001320	0.00960	0.0000025	0.0000025	0.00322	0.00330	0.00025	0.00025	0.025	0.025	0.851	0.812	0.002850	0.00285	4.05
WQ-EDD	2025-11-18 11:30:00	VA25D1477-008	0.000910	0.01490	0.0000025	0.0000025	0.00276	0.00281	0.00025	0.00025	0.025	0.025	0.857	0.859	0.002570	0.00260	4.44
WQ-EDD	2025-12-16 14:45:00	VA25D4009-011	0.000470	0.00273	0.0000025	0.0000025	0.00217	0.00222	0.00025	0.00025	0.025	0.025	0.829	0.877	0.001870	0.00189	4.95

Notes:

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9 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

1 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
	Detection Limit		0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
	Permit-15335		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-EDD	2025-01-12 08:30:00	VA25A0822-011	4.98	0.000005	0.000005	32.2	30.7	0.523	0.510	21.8	21.1	0.000005	0.000005	0.00005	0.00005	0.00015	0.000150
WQ-EDD	2025-02-10 14:25:00	VA25A3370-019	5.87	0.000005	0.000005	32.8	32.9	0.580	0.555	21.7	20.8	0.000005	0.000005	0.00005	0.00005	0.00015	0.000960
WQ-EDD	2025-03-12 11:45:00	VA25A5732-011	5.48	0.000005	0.000005	28.7	28.2	0.461	0.455	19.6	20.5	0.000005	0.000005	0.00005	0.00005	0.00015	0.000467
WQ-EDD	2025-04-22 09:40:00	VA25A9398-011	4.43	0.000005	0.000005	28.5	29.7	0.380	0.410	17.4	17.0	0.000005	0.000005	0.00005	0.00005	0.00041	0.001140
WQ-EDD	2025-05-07 08:15:00	VA25B0755-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-05-21 10:20:00	VA25B2045-013	2.69	0.000005	0.000005	24.7	27.4	0.339	0.347	16.4	18.6	0.000005	0.000005	0.00005	0.00005	0.00015	0.000410
WQ-EDD	2025-06-03 09:00:00	VA25B3458-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-06-16 16:37:00	VA25B4662-003	2.63	0.000005	0.000005	19.0	18.8	0.319	0.320	11.6	12.9	0.000005	0.000005	0.00005	0.00005	0.00015	0.000530
WQ-EDD	2025-07-02 09:00:00	VA25B6425-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-07-15 14:55:00	VA25B7598-009	3.34	0.000005	0.000005	16.7	17.2	0.315	0.321	10.6	11.5	0.000005	0.000005	0.00005	0.00005	0.00015	0.000320
WQ-EDD	2025-07-27 10:35:00	VA25B8815-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-08-13 09:51:00	VA25C0473-009	3.51	0.000005	0.000005	20.6	21.0	0.374	0.368	13.1	14.1	0.000005	0.000005	0.00005	0.00005	0.00015	0.001560
WQ-EDD	2025-08-25 08:50:00	VA25C1840-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-09-09 14:55:00	VA25C3871-015	4.55	0.000005	0.000005	26.9	26.4	0.426	0.444	17.7	18.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.001180
WQ-EDD	2025-09-22 08:20:00	VA25C5315-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-10-14 09:45:00	VA25C7527-012	4.36	0.000005	0.000005	31.2	31.2	0.466	0.470	22.9	23.9	0.000005	0.000005	0.00005	0.00005	0.00015	0.000450
WQ-EDD	2025-11-18 11:30:00	VA25D1477-008	4.57	0.000005	0.000005	33.5	33.9	0.467	0.476	22.5	23.8	0.000005	0.000005	0.00005	0.00005	0.00015	0.000920
WQ-EDD	2025-12-16 14:45:00	VA25D4009-011	5.20	0.000005	0.000005	29.4	35.8	0.490	0.513	21.1	24.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.000150

Notes:

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9 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

1 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0130	-	-	-	0.4840	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0635	-	-	-	2.5200	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-EDD	2025-01-12 08:30:00	VA25A0822-011	0.000620	0.000627	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.1500	0.0005	0.0005	0.0010
WQ-EDD	2025-02-10 14:25:00	VA25A3370-019	0.000574	0.000646	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0903	0.0005	0.0005	0.0032
WQ-EDD	2025-03-12 11:45:00	VA25A5732-011	0.000560	0.000579	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.1450	0.0005	0.0018	0.0033
WQ-EDD	2025-04-22 09:40:00	VA25A9398-011	0.000573	0.000544	0.00025	0.00051	0.0005	0.0015	0.0001	0.0001	0.0025	0.1640	0.0005	0.0005	0.0039
WQ-EDD	2025-05-07 08:15:00	VA25B0755-004	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-05-21 10:20:00	VA25B2045-013	0.000463	0.000482	0.00060	0.00072	0.0005	0.0015	0.0001	0.0001	0.0095	0.0720	0.0005	0.0005	0.0056
WQ-EDD	2025-06-03 09:00:00	VA25B3458-004	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-06-16 16:37:00	VA25B4662-003	0.000305	0.000299	0.00073	0.00102	0.0005	0.0015	0.0001	0.0001	0.0025	0.0150	0.0005	0.0005	0.0010
WQ-EDD	2025-07-02 09:00:00	VA25B6425-004	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-07-15 14:55:00	VA25B7598-009	0.000288	0.000286	0.00065	0.00076	0.0005	0.0015	0.0001	0.0001	0.0094	0.0256	0.0005	0.0005	0.0024
WQ-EDD	2025-07-27 10:35:00	VA25B8815-004	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-08-13 09:51:00	VA25C0473-009	0.000339	0.000366	0.00051	0.00084	0.0005	0.0015	0.0001	0.0001	0.0055	0.0297	0.0005	0.0005	0.0027
WQ-EDD	2025-08-25 08:50:00	VA25C1840-004	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-09-09 14:55:00	VA25C3871-015	0.000450	0.000467	0.00055	0.00074	0.0005	0.0015	0.0001	0.0001	0.0025	0.0350	0.0005	0.0005	0.0042
WQ-EDD	2025-09-22 08:20:00	VA25C5315-004	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-EDD	2025-10-14 09:45:00	VA25C7527-012	0.000617	0.000637	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.1340	0.2250	0.0005	0.0005	0.0026
WQ-EDD	2025-11-18 11:30:00	VA25D1477-008	0.000698	0.000776	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.2990	0.0005	0.0005	0.0010
WQ-EDD	2025-12-16 14:45:00	VA25D4009-011	0.000689	0.000673	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.1880	0.0005	0.0005	0.0035

Notes:

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9 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

1 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

	Carbon Content	Conventional Variables					Major Ions							Metals	
	Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309.0	-	0.1983
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.427	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	30.0	-	9.50	9.50	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	2.38	306	-	0.29	7.98	7.46	133	-	-	0.027	124	131	30.5	0.00200	0.0092
Mean	3.36	426	-	2.00	8.36	7.78	182	-	-	0.067	180	194	47.4	0.00384	0.0323
Median	3.26	427	-	0.88	8.34	7.72	172	-	-	0.086	184	198	49.5	0.00340	0.0236
Maximum	4.74	593	-	18.50	8.50	8.37	262	-	-	0.090	279	256	66.7	0.01110	0.0774
25th percentile	2.85	360	-	0.52	8.32	7.65	147	-	-	0.042	133	150	38.8	0.00235	0.0187
75th percentile	3.70	521	-	1.54	8.46	7.87	209	-	-	0.090	215	234	53.5	0.00392	0.0411
95th percentile	4.45	569	-	5.21	8.50	8.14	248	-	-	0.090	242	248	66.2	0.00785	0.0669
Standard deviation	0.68	94	-	4.18	0.13	0.23	42	-	-	0.030	46	46	11.0	0.00248	0.0207
Standard error	0.20	23	-	0.98	0.03	0.05	10	-	-	0.013	11	13	2.6	0.00072	0.0060
Sample size	12	17	18	18	18	18	18	5	18	5	18	12	18	12	12
Number of non-detects	0	0	11	0	0	0	0	5	18	0	0	0	0	0	0
Percentage of non-detects	0.0	0.0	61.1	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

476	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.074000	-	0.005000	-	-	-	-	-	-	-	1.200	0.0002510	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.250000	-	-	-	-	-	-	-	-	-	-	0.0007460	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.00005	0.000050	0.000530	0.000610	0.0548	0.0551	-	-	-	-	-	-	-	-	43.4
Mean	0.00016	0.000174	0.000850	0.000942	0.0685	0.0704	-	-	-	-	-	-	-	-	61.6
Median	0.00015	0.000155	0.000695	0.000780	0.0698	0.0711	-	-	-	-	-	-	-	-	63.2
Maximum	0.00032	0.000330	0.001310	0.001460	0.0886	0.0923	-	-	-	-	-	-	-	-	94.3
25th percentile	0.00010	0.000124	0.000630	0.000713	0.0595	0.0634	-	-	-	-	-	-	-	-	46.2
75th percentile	0.00022	0.000225	0.001050	0.001175	0.0740	0.0778	-	-	-	-	-	-	-	-	72.8
95th percentile	0.00031	0.000319	0.001288	0.001432	0.0847	0.0873	-	-	-	-	-	-	-	-	82.0
Standard deviation	0.00010	0.000095	0.000293	0.000313	0.0110	0.0116	-	-	-	-	-	-	-	-	15.2
Standard error	0.00003	0.000027	0.000085	0.000090	0.0032	0.0034	-	-	-	-	-	-	-	-	3.6
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	18
Number of non-detects	3	2	0	0	0	0	12	12	12	12	12	11	12	12	0
Percentage of non-detects	25.0	16.7	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	91.7	100.0	100.0	0.0

Notes:

476	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.005	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00056	-	0.001115	-	-	-	-	0.003757	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.006598	-	0.350	1.0000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	45.3	-	-	-	-	0.000632	0.000818	-	0.0130	-	-	0.0005	0.00050	3.70	4.20
Mean	66.2	-	-	-	-	0.001161	0.001358	-	0.0462	-	-	0.0009	0.00100	6.34	6.92
Median	67.9	-	-	-	-	0.001175	0.001425	-	0.0315	-	-	0.0011	0.00118	6.29	7.16
Maximum	87.2	-	-	-	-	0.001690	0.001830	-	0.1210	-	-	0.0014	0.00140	10.60	9.40
25th percentile	52.4	-	-	-	-	0.000805	0.000950	-	0.0210	-	-	0.0005	0.00050	4.40	4.71
75th percentile	78.9	-	-	-	-	0.001487	0.001730	-	0.0565	-	-	0.0012	0.00122	7.64	8.89
95th percentile	84.3	-	-	-	-	0.001640	0.001824	-	0.1089	-	-	0.0013	0.00140	9.25	9.18
Standard deviation	15.3	-	-	-	-	0.000383	0.000410	-	0.0340	-	-	0.0004	0.00038	2.07	2.05
Standard error	4.4	-	-	-	-	0.000110	0.000118	-	0.0098	-	-	0.0001	0.00011	0.49	0.59
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	18	12
Number of non-detects	0	12	12	12	12	0	0	9	0	12	12	5	4	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	0.0	0.0	75.0	0.0	100.0	100.0	41.7	33.3	0.0	0.0

Notes:

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9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	1.15940	-	0.0012500	-	7.60000	0.00240	-	-	-	-	-	-	0.00200	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.92852	-	-	-	46.00000	0.03890	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Minimum	0.000310	0.00273	-	-	0.00169	0.00171	-	-	-	-	0.555	0.589	0.000876	0.00090	2.39
Mean	0.001535	0.01231	-	-	0.00269	0.00272	-	-	-	-	0.796	0.797	0.001795	0.00176	4.05
Median	0.000940	0.01030	-	-	0.00279	0.00290	-	-	-	-	0.840	0.822	0.001435	0.00140	4.28
Maximum	0.004910	0.03560	-	-	0.00423	0.00408	-	-	-	-	1.030	1.070	0.003190	0.00311	5.44
25th percentile	0.000575	0.00507	-	-	0.00209	0.00213	-	-	-	-	0.676	0.688	0.001160	0.00112	3.17
75th percentile	0.001500	0.01302	-	-	0.00314	0.00313	-	-	-	-	0.870	0.876	0.002640	0.00252	4.86
95th percentile	0.004717	0.03324	-	-	0.00367	0.00365	-	-	-	-	0.974	0.974	0.003063	0.00297	5.29
Standard deviation	0.001573	0.01065	-	-	0.00076	0.00073	-	-	-	-	0.140	0.139	0.000864	0.00079	1.03
Standard error	0.000454	0.00308	-	-	0.00022	0.00021	-	-	-	-	0.040	0.040	0.000249	0.00023	0.30
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	12	12	0	0	12	12	12	12	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

476	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	2.63	-	-	16.7	17.2	0.315	0.320	10.6	11.5	-	-	-	-	-	0.000150
Mean	4.30	-	-	27.0	27.8	0.428	0.432	18.0	18.9	-	-	-	-	-	0.000686
Median	4.49	-	-	28.6	29.0	0.444	0.450	18.6	19.6	-	-	-	-	-	0.000499
Maximum	5.87	-	-	33.5	35.8	0.580	0.555	22.9	24.4	-	-	-	-	-	0.001560
25th percentile	3.47	-	-	23.7	25.0	0.365	0.363	15.6	16.3	-	-	-	-	-	0.000388
75th percentile	5.04	-	-	31.4	31.6	0.473	0.484	21.7	21.8	-	-	-	-	-	0.001005
95th percentile	5.66	-	-	33.1	34.8	0.549	0.532	22.7	24.1	-	-	-	-	-	0.001351
Standard deviation	1.05	-	-	5.6	6.0	0.084	0.079	4.3	4.3	-	-	-	-	-	0.000453
Standard error	0.30	-	-	1.6	1.7	0.024	0.023	1.3	1.3	-	-	-	-	-	0.000131
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	12	12	0	0	0	0	0	0	12	12	12	12	11	2
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	91.7	16.7

Notes:

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9	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.19 (Cont'd.)

	Metals								Nutrients				
	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0130	-	-	-	0.4840	3.0000	0.0200	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0635	-	-	-	2.5200	32.8000	0.0600	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.000288	0.000286	-	0.00025	-	-	-	-	-	0.0150	-	-	0.0010
Mean	0.000515	0.000532	-	0.00051	-	-	-	-	-	0.1199	-	-	0.0029
Median	0.000566	0.000561	-	0.00038	-	-	-	-	-	0.1177	-	-	0.0030
Maximum	0.000698	0.000776	-	0.00102	-	-	-	-	-	0.2990	-	-	0.0056
25th percentile	0.000422	0.000442	-	0.00025	-	-	-	-	-	0.0337	-	-	0.0020
75th percentile	0.000618	0.000639	-	0.00074	-	-	-	-	-	0.1700	-	-	0.0036
95th percentile	0.000693	0.000719	-	0.00092	-	-	-	-	-	0.2583	-	-	0.0048
Standard deviation	0.000144	0.000155	-	0.00029	-	-	-	-	-	0.0903	-	-	0.0014
Standard error	0.000042	0.000045	-	0.00008	-	-	-	-	-	0.0261	-	-	0.0004
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	7	6	12	12	12	12	8	0	12	11	3
Percentage of non-detects	0.0	0.0	58.3	50.0	100.0	100.0	100.0	100.0	66.7	0.0	100.0	91.7	25.0

Notes:

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9 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

1 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.20 2025 Kemess Water Quality Data – (WQ-RCb).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.1206
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.956	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code																
WQ-RCb	2025-02-11 16:30:00	VA25A3370-024	2.30	121.0	15.8	8.66	7.85	7.24	57.4	0.025	0.25	0.010	58.1	56.2	2.94	0.0084	0.1850
WQ-RCb	2025-06-17 10:15:00	VA25B5014-013	9.19	81.1	1.5	0.20	7.59	6.42	38.3	0.025	0.25	0.032	39.0	40.3	4.27	0.0515	0.0664
WQ-RCb	2025-08-10 14:25:00	VA25C0242-012	6.55	106.0	1.5	0.19	7.74	7.23	54.5	-	0.25	-	51.4	52.2	2.98	0.0252	0.0255
WQ-RCb	2025-10-14 10:45:00	VA25C7527-013	5.08	110.0	1.5	0.15	7.87	7.65	50.6	-	0.25	-	51.3	51.6	4.43	0.0177	0.0200
		Minimum	2.30	81.1	-	0.15	7.59	6.42	38.3	-	-	0.010	39.0	40.3	2.94	0.0084	0.0200
		Mean	5.78	104.5	-	2.30	7.76	7.14	50.2	-	-	0.021	50.0	50.1	3.65	0.0257	0.0742
		Median	5.81	108.0	-	0.20	7.80	7.24	52.5	-	-	0.021	51.3	51.9	3.62	0.0215	0.0459
		Maximum	9.19	121.0	-	8.66	7.87	7.65	57.4	-	-	0.032	58.1	56.2	4.43	0.0515	0.1850
		25th percentile	4.38	99.8	-	0.18	7.70	7.03	47.5	-	-	0.016	48.2	48.8	2.97	0.0154	0.0241
		75th percentile	7.21	112.8	-	2.32	7.85	7.34	55.2	-	-	0.026	53.1	53.2	4.31	0.0318	0.0960
		95th percentile	8.79	119.3	-	7.39	7.87	7.59	57.0	-	-	0.031	57.1	55.6	4.41	0.0476	0.1672
		Standard deviation	2.88	16.9	-	4.24	0.13	0.52	8.4	-	-	0.016	8.0	6.8	0.81	0.0185	0.0767
		Standard error	1.44	8.4	-	2.12	0.06	0.26	4.2	-	-	0.011	4.0	3.4	0.40	0.0093	0.0383
		Sample size	4	4	4	4	4	4	4	2	4	2	4	4	4	4	4
		Number of non-detects	0	0	3	0	0	0	0	2	4	1	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	75.0	0.0	0.0	0.0	0.0	100.0	100.0	50.0	0.0	0.0	0.0	0.0	0.0

Notes:

172	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.20 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001060	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002230	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WQ-RCb 2025-02-11 16:30:00 VA25A3370-024	0.00005	0.00005	0.00005	0.00017	0.0152	0.0170	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000059	0.0000135	19.6
WQ-RCb 2025-06-17 10:15:00 VA25B5014-013	0.00005	0.00005	0.00013	0.00018	0.0126	0.0133	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000051	12.8
WQ-RCb 2025-08-10 14:25:00 VA25C0242-012	0.00005	0.00005	0.00011	0.00011	0.0141	0.0142	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	17.3
WQ-RCb 2025-10-14 10:45:00 VA25C7527-013	0.00005	0.00005	0.00005	0.00005	0.0121	0.0129	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	17.2
Minimum	-	-	0.00005	0.00005	0.0121	0.0129	-	-	-	-	-	-	-	0.0000025	12.8
Mean	-	-	0.00008	0.00013	0.0135	0.0144	-	-	-	-	-	-	-	0.0000059	16.7
Median	-	-	0.00008	0.00014	0.0134	0.0138	-	-	-	-	-	-	-	0.0000038	17.2
Maximum	-	-	0.00013	0.00018	0.0152	0.0170	-	-	-	-	-	-	-	0.0000135	19.6
25th percentile	-	-	0.00005	0.00010	0.0125	0.0132	-	-	-	-	-	-	-	0.0000025	16.1
75th percentile	-	-	0.00012	0.00017	0.0144	0.0149	-	-	-	-	-	-	-	0.0000072	17.9
95th percentile	-	-	0.00013	0.00018	0.0150	0.0166	-	-	-	-	-	-	-	0.0000122	19.3
Standard deviation	-	-	0.00004	0.00006	0.0014	0.0018	-	-	-	-	-	-	-	0.0000052	2.8
Standard error	-	-	0.00002	0.00003	0.0007	0.0009	-	-	-	-	-	-	-	0.0000026	1.4
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	4	4	2	1	0	0	4	4	4	4	4	4	3	2	0
Percentage of non-detects	100.0	100.0	50.0	25.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	75.0	50.0	0.0

Notes:

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5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.20 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.00030	-	-	-	-	0.002828	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00209	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WQ-RCb 2025-02-11 16:30:00 VA25A3370-024	18.8	0.00025	0.00025	0.00005	0.00005	0.00067	0.00128	0.015	0.220	0.000025	0.000074	0.0005	0.0005	2.23	2.24
WQ-RCb 2025-06-17 10:15:00 VA25B5014-013	13.2	0.00025	0.00025	0.00005	0.00005	0.00180	0.00193	0.026	0.034	0.000025	0.000025	0.0005	0.0005	1.70	1.78
WQ-RCb 2025-08-10 14:25:00 VA25C0242-012	17.4	0.00025	0.00025	0.00005	0.00005	0.00143	0.00149	0.021	0.025	0.000025	0.000025	0.0005	0.0005	1.98	2.12
WQ-RCb 2025-10-14 10:45:00 VA25C7527-013	17.2	0.00025	0.00025	0.00005	0.00005	0.00113	0.00122	0.015	0.018	0.000025	0.000025	0.0005	0.0005	2.04	2.11
Minimum	13.2	-	-	-	-	0.00067	0.00122	0.015	0.018	-	-	-	-	1.70	1.78
Mean	16.6	-	-	-	-	0.00126	0.00148	0.019	0.074	-	-	-	-	1.99	2.06
Median	17.3	-	-	-	-	0.00128	0.00138	0.018	0.030	-	-	-	-	2.01	2.12
Maximum	18.8	-	-	-	-	0.00180	0.00193	0.026	0.220	-	-	-	-	2.23	2.24
25th percentile	16.2	-	-	-	-	0.00101	0.00126	0.015	0.023	-	-	-	-	1.91	2.03
75th percentile	17.8	-	-	-	-	0.00152	0.00160	0.022	0.080	-	-	-	-	2.09	2.15
95th percentile	18.6	-	-	-	-	0.00174	0.00186	0.025	0.192	-	-	-	-	2.20	2.22
Standard deviation	2.4	-	-	-	-	0.00048	0.00032	0.005	0.097	-	-	-	-	0.22	0.20
Standard error	1.2	-	-	-	-	0.00024	0.00016	0.003	0.049	-	-	-	-	0.11	0.10
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	4	4	0	0	0	0	4	3	4	4	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	75.0	100.0	100.0	0.0	0.0

Notes:

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5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.20 (Cont'd.)

			Metals													
			Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
		Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.77660	-	0.0012500	-	7.600000	0.00120	-	-	-	-	-	-	0.002000	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.96978	-	-	-	46.000000	0.02160	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-RCb	2025-02-11 16:30:00	VA25A3370-024	0.01520	0.04410	0.0000025	0.0000025	0.000905	0.000977	0.00025	0.00025	0.025	0.025	0.321	0.273	0.000052	0.000025	4.05
WQ-RCb	2025-06-17 10:15:00	VA25B5014-013	0.00345	0.00499	0.0000025	0.0000025	0.000517	0.000512	0.00025	0.00025	0.025	0.025	0.175	0.192	0.000068	0.000059	3.46
WQ-RCb	2025-08-10 14:25:00	VA25C0242-012	0.00466	0.00518	0.0000025	0.0000025	0.000598	0.000580	0.00025	0.00025	0.025	0.025	0.103	0.050	0.000062	0.000071	3.78
WQ-RCb	2025-10-14 10:45:00	VA25C7527-013	0.00602	0.00481	0.0000025	0.0000025	0.000694	0.000688	0.00025	0.00025	0.025	0.025	0.136	0.134	0.000068	0.000054	3.89
		Minimum	0.00345	0.00481	-	-	0.000517	0.000512	-	-	-	-	0.103	0.050	0.000052	0.000025	3.46
		Mean	0.00733	0.01477	-	-	0.000678	0.000689	-	-	-	-	0.184	0.162	0.000062	0.000052	3.80
		Median	0.00534	0.00508	-	-	0.000646	0.000634	-	-	-	-	0.156	0.163	0.000065	0.000056	3.84
		Maximum	0.01520	0.04410	-	-	0.000905	0.000977	-	-	-	-	0.321	0.273	0.000068	0.000071	4.05
		25th percentile	0.00436	0.00494	-	-	0.000578	0.000563	-	-	-	-	0.128	0.113	0.000060	0.000047	3.70
		75th percentile	0.00832	0.01491	-	-	0.000747	0.000760	-	-	-	-	0.211	0.212	0.000068	0.000062	3.93
		95th percentile	0.01382	0.03826	-	-	0.000873	0.000934	-	-	-	-	0.299	0.261	0.000068	0.000069	4.03
		Standard deviation	0.00535	0.01955	-	-	0.000167	0.000205	-	-	-	-	0.096	0.094	0.000008	0.000020	0.25
		Standard error	0.00267	0.00978	-	-	0.000084	0.000103	-	-	-	-	0.048	0.047	0.000004	0.000010	0.12
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	4	4	0	0	4	4	4	4	0	1	0	1	0
		Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	25.0	0.0	25.0	0.0

Notes:

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5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.20 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WQ-RCb 2025-02-11 16:30:00 VA25A3370-024	4.43	0.000005	0.000005	2.16	2.02	0.0595	0.0601	1.34	1.62	0.000005	0.000005	0.00005	0.00005	0.00015	0.00432
WQ-RCb 2025-06-17 10:15:00 VA25B5014-013	3.72	0.000005	0.000005	1.39	1.40	0.0395	0.0398	1.34	1.23	0.000005	0.000005	0.00005	0.00005	0.00040	0.00056
WQ-RCb 2025-08-10 14:25:00 VA25C0242-012	3.73	0.000005	0.000005	1.68	1.64	0.0534	0.0498	0.92	1.00	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WQ-RCb 2025-10-14 10:45:00 VA25C7527-013	4.07	0.000005	0.000005	1.78	1.86	0.0534	0.0535	1.75	1.62	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
Minimum	3.72	-	-	1.39	1.40	0.0395	0.0398	0.92	1.00	-	-	-	-	-	0.00015
Mean	3.99	-	-	1.75	1.73	0.0515	0.0508	1.34	1.37	-	-	-	-	-	0.00130
Median	3.90	-	-	1.73	1.75	0.0534	0.0516	1.34	1.43	-	-	-	-	-	0.00035
Maximum	4.43	-	-	2.16	2.02	0.0595	0.0601	1.75	1.62	-	-	-	-	-	0.00432
25th percentile	3.73	-	-	1.61	1.58	0.0499	0.0473	1.24	1.17	-	-	-	-	-	0.00015
75th percentile	4.16	-	-	1.88	1.90	0.0549	0.0552	1.44	1.62	-	-	-	-	-	0.00150
95th percentile	4.38	-	-	2.10	2.00	0.0586	0.0591	1.69	1.62	-	-	-	-	-	0.00376
Standard deviation	0.34	-	-	0.32	0.27	0.0085	0.0085	0.34	0.31	-	-	-	-	-	0.00203
Standard error	0.17	-	-	0.16	0.13	0.0042	0.0042	0.17	0.15	-	-	-	-	-	0.00101
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	4	0	0	0	0	0	0	4	4	4	4	3	2
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	75.0	50.0

Notes:

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5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.20 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0079	-	-	-	1.9000	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0305	-	-	-	10.5000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-RCb	2025-02-11 16:30:00	VA25A3370-024	0.000021	0.000029	0.00025	0.00025	0.0012	0.0015	0.0001	0.00010	0.0061	0.0292	0.0005	0.0005	0.0028
WQ-RCb	2025-06-17 10:15:00	VA25B5014-013	0.000016	0.000015	0.00025	0.00025	0.0005	0.0015	0.0003	0.00026	0.0025	0.0025	0.0005	0.0005	0.0028
WQ-RCb	2025-08-10 14:25:00	VA25C0242-012	0.000016	0.000016	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0078	0.0025	0.0005	0.0005	0.0010
WQ-RCb	2025-10-14 10:45:00	VA25C7527-013	0.000018	0.000018	0.00025	0.00025	0.0005	0.0015	0.0001	0.00010	0.0025	0.0025	0.0005	0.0005	0.0010
		Minimum	0.000016	0.000015	-	-	-	-	-	-	0.0025	-	-	-	0.0010
		Mean	0.000018	0.000019	-	-	-	-	-	-	0.0047	-	-	-	0.0019
		Median	0.000017	0.000017	-	-	-	-	-	-	0.0043	-	-	-	0.0019
		Maximum	0.000021	0.000029	-	-	-	-	-	-	0.0078	-	-	-	0.0028
		25th percentile	0.000016	0.000016	-	-	-	-	-	-	0.0025	-	-	-	0.0010
		75th percentile	0.000019	0.000021	-	-	-	-	-	-	0.0065	-	-	-	0.0028
		95th percentile	0.000021	0.000027	-	-	-	-	-	-	0.0075	-	-	-	0.0028
		Standard deviation	0.000002	0.000006	-	-	-	-	-	-	0.0027	-	-	-	0.0010
		Standard error	0.000001	0.000003	-	-	-	-	-	-	0.0013	-	-	-	0.0005
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	4	4	3	4	3	3	2	3	4	4	2
		Percentage of non-detects	0.0	0.0	100.0	100.0	75.0	100.0	75.0	75.0	50.0	75.0	100.0	100.0	50.0

Notes:

172	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
5	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 2025 Kemess Water Quality Data – (WQ-WCSP).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.1156
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.998	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Permit-15335	-	-	30.0	-	9.50	9.50	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WQ-WCSP	2025-01-13 14:10:00	VA25A0822-014	4.76	253.0	1.5	1.32	7.94	7.54	68.7	-	0.25	-	78.4	76.0	48.20	0.00650	0.0283
WQ-WCSP	2025-03-11 14:50:00	VA25A5732-013	2.70	413.0	1.5	2.10	7.69	7.21	92.1	-	0.25	-	118.0	118.0	106.00	0.00382	0.0146
WQ-WCSP	2025-04-22 09:20:00	VA25A9398-013	3.15	305.0	1.5	3.08	8.12	6.88	76.7	-	0.25	-	87.5	85.0	70.90	0.01210	0.0716
WQ-WCSP	2025-05-07 08:05:00	VA25B0755-005	-	150.0	3.9	7.88	7.71	7.67	47.7	-	0.25	-	54.5	-	27.40	-	-
WQ-WCSP	2025-05-21 09:55:00	VA25B2045-011	7.08	102.0	1.5	2.63	7.72	7.26	39.5	-	0.25	-	42.4	44.0	10.20	0.04910	0.1410
WQ-WCSP	2025-06-03 08:50:00	VA25B3458-005	-	94.6	1.5	1.38	7.78	7.24	39.2	-	0.25	-	43.2	-	9.39	-	-
WQ-WCSP	2025-06-16 10:41:00	VA25B4662-016	5.90	110.0	6.4	1.79	7.83	7.26	41.2	0.025	0.25	0.033	43.3	46.7	13.60	0.02860	0.0789
WQ-WCSP	2025-06-16 16:10:00	VA25B4662-014	5.60	109.0	4.6	1.60	7.78	7.26	41.4	0.025	0.25	0.034	43.5	44.1	13.70	0.02990	0.0881
WQ-WCSP	2025-07-02 08:50:00	VA25B6425-005	-	112.0	1.5	1.87	8.00	7.19	46.2	-	0.25	-	48.0	-	12.20	-	-
WQ-WCSP	2025-07-15 14:30:00	VA25B7598-006	5.34	124.0	1.5	1.77	7.68	7.42	49.1	-	0.25	-	51.3	51.7	13.30	0.02630	0.0791
WQ-WCSP	2025-07-27 10:25:00	VA25B8815-005	-	127.0	1.5	2.15	7.84	7.32	49.0	-	0.25	-	53.9	-	14.30	-	-
WQ-WCSP	2025-08-13 09:25:00	VA25C0473-013	5.60	147.0	1.5	2.11	7.91	7.49	56.1	0.025	0.25	0.040	61.6	60.1	18.10	0.01490	0.0600
WQ-WCSP	2025-08-25 08:40:00	VA25C1840-005	-	-	1.5	2.10	7.84	7.18	56.9	-	0.25	-	66.6	-	19.90	-	-
WQ-WCSP	2025-09-09 14:20:00	VA25C3871-006	4.62	202.0	1.5	1.76	8.14	7.60	69.8	-	0.25	-	75.0	74.6	29.70	0.00970	0.0346
WQ-WCSP	2025-09-22 08:15:00	VA25C5315-005	-	168.0	5.3	3.16	8.02	7.71	58.2	-	0.25	-	71.9	-	25.40	-	-
WQ-WCSP	2025-10-14 11:10:00	VA25C7527-014	4.58	170.0	1.5	1.51	7.96	7.78	58.5	-	0.25	-	67.0	65.3	24.60	0.01390	0.0452
WQ-WCSP	2025-11-18 14:40:00	VA25D1477-009	3.31	171.0	1.5	0.72	7.74	7.76	57.7	0.025	0.25	0.044	65.7	71.9	28.80	0.01170	0.0279
WQ-WCSP	2025-12-16 14:15:00	VA25D4009-013	2.65	260.0	4.2	0.83	8.06	7.02	80.1	0.025	0.25	0.025	70.9	73.0	15.90	0.00680	0.0193

Notes:

455	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.005000	-	-	-	-	-	-	-	1.200	0.0001120	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002430	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-WCSP	2025-01-13 14:10:00	VA25A0822-014	0.00005	0.00005	0.000240	0.000320	0.0375	0.0391	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000054	0.0000111	28.0
WQ-WCSP	2025-03-11 14:50:00	VA25A5732-013	0.00005	0.00005	0.000207	0.000296	0.0774	0.0759	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000132	0.0000205	42.2
WQ-WCSP	2025-04-22 09:20:00	VA25A9398-013	0.00005	0.00005	0.000280	0.000350	0.0423	0.0418	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000176	0.0000226	31.4
WQ-WCSP	2025-05-07 08:05:00	VA25B0755-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.3
WQ-WCSP	2025-05-21 09:55:00	VA25B2045-011	0.00005	0.00005	0.000210	0.000280	0.0156	0.0169	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000098	0.0000121	14.8
WQ-WCSP	2025-06-03 08:50:00	VA25B3458-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.3
WQ-WCSP	2025-06-16 10:41:00	VA25B4662-016	0.00005	0.00005	0.000230	0.000310	0.0155	0.0177	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000139	0.0000116	15.1
WQ-WCSP	2025-06-16 16:10:00	VA25B4662-014	0.00005	0.00005	0.000240	0.000340	0.0157	0.0168	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000119	0.0000144	15.3
WQ-WCSP	2025-07-02 08:50:00	VA25B6425-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.0
WQ-WCSP	2025-07-15 14:30:00	VA25B7598-006	0.00005	0.00005	0.000250	0.000310	0.0183	0.0190	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000141	0.0000129	18.2
WQ-WCSP	2025-07-27 10:25:00	VA25B8815-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.0
WQ-WCSP	2025-08-13 09:25:00	VA25C0473-013	0.00005	0.00005	0.000350	0.000410	0.0212	0.0229	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000143	0.0000190	21.8
WQ-WCSP	2025-08-25 08:40:00	VA25C1840-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.6
WQ-WCSP	2025-09-09 14:20:00	VA25C3871-006	0.00005	0.00005	0.000460	0.000570	0.0313	0.0320	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000087	0.0000141	26.7
WQ-WCSP	2025-09-22 08:15:00	VA25C5315-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.5
WQ-WCSP	2025-10-14 11:10:00	VA25C7527-014	0.00005	0.00005	0.000250	0.000310	0.0207	0.0213	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000169	0.0000153	23.7
WQ-WCSP	2025-11-18 14:40:00	VA25D1477-009	0.00005	0.00005	0.000210	0.000220	0.0218	0.0229	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000221	0.0000233	23.2
WQ-WCSP	2025-12-16 14:15:00	VA25D4009-013	0.00005	0.00005	0.000210	0.000230	0.0227	0.0249	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000186	0.0000201	25.5

Notes:

455	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.005	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.000389	-	0.00032	-	-	-	-	0.003174	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00197	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code														
WQ-WCSP	2025-01-13 14:10:00	VA25A0822-014	26.9	0.00025	0.00025	0.000050	0.000050	0.00152	0.00176	0.074	0.152	0.000025	0.000025	0.0005	0.0005	2.07	2.14
WQ-WCSP	2025-03-11 14:50:00	VA25A5732-013	42.2	0.00025	0.00025	0.000121	0.000144	0.00138	0.00151	0.174	0.400	0.000025	0.000025	0.0005	0.0005	3.06	2.96
WQ-WCSP	2025-04-22 09:20:00	VA25A9398-013	30.6	0.00025	0.00025	0.000050	0.000110	0.00159	0.00198	0.116	0.236	0.000025	0.000074	0.0005	0.0005	2.21	2.10
WQ-WCSP	2025-05-07 08:05:00	VA25B0755-005	-	-	-	-	-	-	-	-	-	-	-	-	-	1.53	-
WQ-WCSP	2025-05-21 09:55:00	VA25B2045-011	15.3	0.00025	0.00025	0.000050	0.000050	0.00285	0.00331	0.063	0.154	0.000025	0.000058	0.0005	0.0005	1.33	1.40
WQ-WCSP	2025-06-03 08:50:00	VA25B3458-005	-	-	-	-	-	-	-	-	-	-	-	-	-	1.22	-
WQ-WCSP	2025-06-16 10:41:00	VA25B4662-016	16.4	0.00025	0.00025	0.000050	0.000050	0.00264	0.00314	0.062	0.131	0.000025	0.000025	0.0005	0.0005	1.36	1.39
WQ-WCSP	2025-06-16 16:10:00	VA25B4662-014	15.5	0.00025	0.00025	0.000050	0.000050	0.00268	0.00304	0.061	0.141	0.000025	0.000025	0.0005	0.0005	1.29	1.31
WQ-WCSP	2025-07-02 08:50:00	VA25B6425-005	-	-	-	-	-	-	-	-	-	-	-	-	-	1.36	-
WQ-WCSP	2025-07-15 14:30:00	VA25B7598-006	18.3	0.00025	0.00025	0.000050	0.000050	0.00254	0.00289	0.080	0.159	0.000025	0.000025	0.0005	0.0005	1.43	1.47
WQ-WCSP	2025-07-27 10:25:00	VA25B8815-005	-	-	-	-	-	-	-	-	-	-	-	-	-	1.58	-
WQ-WCSP	2025-08-13 09:25:00	VA25C0473-013	21.2	0.00025	0.00025	0.000050	0.000050	0.00215	0.00238	0.061	0.195	0.000025	0.000056	0.0005	0.0005	1.73	1.75
WQ-WCSP	2025-08-25 08:40:00	VA25C1840-005	-	-	-	-	-	-	-	-	-	-	-	-	-	1.86	-
WQ-WCSP	2025-09-09 14:20:00	VA25C3871-006	26.4	0.00025	0.00025	0.000050	0.000050	0.00214	0.00245	0.061	0.171	0.000025	0.000025	0.0005	0.0005	2.02	2.10
WQ-WCSP	2025-09-22 08:15:00	VA25C5315-005	-	-	-	-	-	-	-	-	-	-	-	-	-	1.99	-
WQ-WCSP	2025-10-14 11:10:00	VA25C7527-014	23.0	0.00025	0.00025	0.000050	0.000050	0.00182	0.00217	0.091	0.172	0.000025	0.000025	0.0005	0.0005	1.90	1.91
WQ-WCSP	2025-11-18 14:40:00	VA25D1477-009	25.7	0.00025	0.00025	0.000050	0.000050	0.00151	0.00155	0.089	0.149	0.000025	0.000025	0.0005	0.0005	1.89	1.87
WQ-WCSP	2025-12-16 14:15:00	VA25D4009-013	25.9	0.00025	0.00025	0.000050	0.000050	0.00118	0.00143	0.079	0.140	0.000025	0.000025	0.0005	0.0005	1.75	2.03

Notes:

455	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.79156	-	0.0012500	-	7.600000	0.00150	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.00725	-	-	-	46.000000	0.02500	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-WCSP	2025-01-13 14:10:00	VA25A0822-014	0.08430	0.08560	0.0000025	0.0000025	0.001090	0.001110	0.00025	0.00025	0.025	0.025	0.320	0.346	0.007750	0.007710	4.12
WQ-WCSP	2025-03-11 14:50:00	VA25A5732-013	0.26600	0.26600	0.0000025	0.0000025	0.001110	0.001170	0.00025	0.00025	0.025	0.025	0.563	0.564	0.023000	0.023600	4.46
WQ-WCSP	2025-04-22 09:20:00	VA25A9398-013	0.06340	0.06460	0.0000025	0.0000025	0.001020	0.001100	0.00088	0.00095	0.025	0.025	0.535	0.503	0.009860	0.009990	3.81
WQ-WCSP	2025-05-07 08:05:00	VA25B0755-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-05-21 09:55:00	VA25B2045-011	0.00588	0.00828	0.0000025	0.0000025	0.000626	0.000621	0.00025	0.00025	0.025	0.025	0.204	0.214	0.000532	0.000603	3.07
WQ-WCSP	2025-06-03 08:50:00	VA25B3458-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-06-16 10:41:00	VA25B4662-016	0.00849	0.01120	0.0000025	0.0000025	0.000735	0.000733	0.00025	0.00025	0.025	0.025	0.167	0.181	0.000846	0.000983	3.75
WQ-WCSP	2025-06-16 16:10:00	VA25B4662-014	0.00854	0.01140	0.0000025	0.0000025	0.000761	0.000741	0.00025	0.00025	0.025	0.025	0.160	0.174	0.000941	0.001070	3.71
WQ-WCSP	2025-07-02 08:50:00	VA25B6425-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-07-15 14:30:00	VA25B7598-006	0.02000	0.02380	0.0000025	0.0000025	0.000783	0.000831	0.00025	0.00025	0.025	0.025	0.159	0.168	0.001110	0.001270	3.54
WQ-WCSP	2025-07-27 10:25:00	VA25B8815-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-08-13 09:25:00	VA25C0473-013	0.02390	0.04500	0.0000025	0.0000025	0.001020	0.001050	0.00025	0.00058	0.025	0.025	0.183	0.190	0.001830	0.001860	3.50
WQ-WCSP	2025-08-25 08:40:00	VA25C1840-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-09-09 14:20:00	VA25C3871-006	0.03270	0.06880	0.0000025	0.0000025	0.001530	0.001570	0.00025	0.00025	0.025	0.025	0.311	0.307	0.004000	0.004360	2.90
WQ-WCSP	2025-09-22 08:15:00	VA25C5315-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-10-14 11:10:00	VA25C7527-014	0.02430	0.02760	0.0000025	0.0000025	0.000873	0.000883	0.00057	0.00068	0.025	0.025	0.229	0.225	0.002190	0.002400	3.62
WQ-WCSP	2025-11-18 14:40:00	VA25D1477-009	0.03240	0.03360	0.0000025	0.0000025	0.000755	0.000789	0.00082	0.00075	0.025	0.025	0.227	0.228	0.002290	0.002640	4.09
WQ-WCSP	2025-12-16 14:15:00	VA25D4009-013	0.04520	0.05220	0.0000025	0.0000025	0.000741	0.000741	0.00064	0.00080	0.025	0.025	0.255	0.260	0.003420	0.003430	4.47

Notes:

455 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

19 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals															
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code														
WQ-WCSP	2025-01-13 14:10:00	VA25A0822-014	4.27	0.000005	0.000005	19.60	19.20	0.1050	0.1060	16.80	16.20	0.000005	0.000005	0.00005	0.00021	0.00015	0.000700
WQ-WCSP	2025-03-11 14:50:00	VA25A5732-013	4.64	0.000005	0.000005	41.20	40.60	0.1800	0.1820	36.10	36.80	0.000005	0.000005	0.00005	0.00005	0.00015	0.000352
WQ-WCSP	2025-04-22 09:20:00	VA25A9398-013	3.88	0.000005	0.000005	27.80	29.60	0.1190	0.1290	23.10	23.90	0.000005	0.000005	0.00005	0.00005	0.00056	0.002250
WQ-WCSP	2025-05-07 08:05:00	VA25B0755-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-05-21 09:55:00	VA25B2045-011	3.41	0.000005	0.000005	2.78	3.10	0.0468	0.0471	3.12	3.67	0.000005	0.000005	0.00005	0.00005	0.00130	0.003300
WQ-WCSP	2025-06-03 08:50:00	VA25B3458-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-06-16 10:41:00	VA25B4662-016	3.56	0.000005	0.000005	3.60	3.71	0.0504	0.0514	4.12	4.27	0.000005	0.000005	0.00005	0.00005	0.00064	0.001630
WQ-WCSP	2025-06-16 16:10:00	VA25B4662-014	3.87	0.000005	0.000005	3.56	3.59	0.0500	0.0490	3.99	4.21	0.000005	0.000005	0.00005	0.00005	0.00063	0.002300
WQ-WCSP	2025-07-02 08:50:00	VA25B6425-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-07-15 14:30:00	VA25B7598-006	3.80	0.000005	0.000005	4.10	4.21	0.0565	0.0590	4.20	4.38	0.000005	0.000005	0.00005	0.00005	0.00059	0.002040
WQ-WCSP	2025-07-27 10:25:00	VA25B8815-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-08-13 09:25:00	VA25C0473-013	3.72	0.000005	0.000005	6.29	6.23	0.0713	0.0693	6.12	6.61	0.000005	0.000005	0.00005	0.00005	0.00032	0.001490
WQ-WCSP	2025-08-25 08:40:00	VA25C1840-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-09-09 14:20:00	VA25C3871-006	3.12	0.000005	0.000005	12.40	12.20	0.0898	0.0925	10.70	10.80	0.000005	0.000005	0.00005	0.00005	0.00015	0.000800
WQ-WCSP	2025-09-22 08:15:00	VA25C5315-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-10-14 11:10:00	VA25C7527-014	3.85	0.000005	0.000005	7.88	7.93	0.0770	0.0777	8.43	8.25	0.000005	0.000005	0.00005	0.00005	0.00032	0.001060
WQ-WCSP	2025-11-18 14:40:00	VA25D1477-009	4.28	0.000005	0.000005	9.01	9.31	0.0731	0.0743	9.26	9.94	0.000005	0.000005	0.00005	0.00005	0.00015	0.000560
WQ-WCSP	2025-12-16 14:15:00	VA25D4009-013	4.62	0.000005	0.000005	11.10	13.60	0.0851	0.0843	12.10	13.30	0.000005	0.000005	0.00005	0.00005	0.00015	0.000350

Notes:

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19 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0077	-	-	-	1.6900	3.0000	0.02000	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.0165000	-	-	0.0296	-	-	-	8.7700	32.8000	0.06000	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.0075000	-	0.06000	-	-	-	-	-	-	-	-	-
		Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WQ-WCSP	2025-01-13 14:10:00	VA25A0822-014	0.0000300	0.0000310	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0239	0.7430	0.00180	0.0005	0.0021
WQ-WCSP	2025-03-11 14:50:00	VA25A5732-013	0.0000442	0.0000484	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0677	2.2900	0.00856	0.0005	0.0010
WQ-WCSP	2025-04-22 09:20:00	VA25A9398-013	0.0000410	0.0000420	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0076	1.2500	0.00180	0.0005	0.0039
WQ-WCSP	2025-05-07 08:05:00	VA25B0755-005	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-05-21 09:55:00	VA25B2045-011	0.0000250	0.0000270	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0093	0.0475	0.00050	0.0005	0.0042
WQ-WCSP	2025-06-03 08:50:00	VA25B3458-005	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-06-16 10:41:00	VA25B4662-016	0.0000230	0.0000230	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.0555	0.00050	0.0005	0.0047
WQ-WCSP	2025-06-16 16:10:00	VA25B4662-014	0.0000200	0.0000240	0.00025	0.00063	0.0005	0.0015	0.0001	0.0001	0.0025	0.0540	0.00050	0.0005	0.0010
WQ-WCSP	2025-07-02 08:50:00	VA25B6425-005	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-07-15 14:30:00	VA25B7598-006	0.0000250	0.0000270	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0078	0.0710	0.00050	0.0005	0.0025
WQ-WCSP	2025-07-27 10:25:00	VA25B8815-005	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-08-13 09:25:00	VA25C0473-013	0.0000280	0.0000340	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0121	0.0931	0.00050	0.0005	0.0027
WQ-WCSP	2025-08-25 08:40:00	VA25C1840-005	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-09-09 14:20:00	VA25C3871-006	0.0000390	0.0000380	0.00025	0.00025	0.0014	0.0015	0.0001	0.0001	0.0089	0.1270	0.00130	0.0005	0.0050
WQ-WCSP	2025-09-22 08:15:00	VA25C5315-005	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ-WCSP	2025-10-14 11:10:00	VA25C7527-014	0.0000360	0.0000380	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0077	0.1700	0.00050	0.0005	0.0022
WQ-WCSP	2025-11-18 14:40:00	VA25D1477-009	0.0000290	0.0000330	0.00025	0.00025	0.0028	0.0015	0.0001	0.0001	0.0118	0.2300	0.00050	0.0005	0.0010
WQ-WCSP	2025-12-16 14:15:00	VA25D4009-013	0.0000290	0.0000290	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0218	0.1620	0.00050	0.0005	0.0026

Notes:

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19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Carbon Content	Conventional Variables					Major Ions							Metals	
	Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.00	-	0.1156
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	0.998	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	30.0	-	9.50	9.50	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	2.65	94.6	-	0.72	7.68	6.88	39.2	-	-	0.025	42.4	44.0	9.39	0.00382	0.0146
Mean	4.61	177.5	-	2.21	7.88	7.38	57.1	-	-	0.035	63.5	67.5	27.87	0.01778	0.0574
Median	4.69	150.0	-	1.83	7.84	7.29	56.5	-	-	0.034	63.7	68.6	19.00	0.01300	0.0526
Maximum	7.08	413.0	-	7.88	8.14	7.78	92.1	-	-	0.044	118.0	118.0	106.00	0.04910	0.1410
25th percentile	3.27	112.0	-	1.53	7.75	7.22	46.6	-	-	0.033	48.8	50.5	13.62	0.00898	0.0282
75th percentile	5.60	202.0	-	2.14	7.99	7.58	66.2	-	-	0.040	71.7	74.9	28.45	0.02687	0.0789
95th percentile	6.43	326.6	-	3.87	8.12	7.76	81.9	-	-	0.043	92.1	99.8	76.16	0.03854	0.1119
Standard deviation	1.40	86.0	-	1.56	0.15	0.26	15.2	-	-	0.007	19.2	21.0	24.73	0.01320	0.0366
Standard error	0.40	20.8	-	0.37	0.04	0.06	3.6	-	-	0.003	4.5	6.1	5.83	0.00381	0.0106
Sample size	12	17	18	18	18	18	18	5	18	5	18	12	18	12	12
Number of non-detects	0	0	13	0	0	0	0	5	18	0	0	0	0	0	0
Percentage of non-detects	0.0	0.0	72.2	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

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19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.005000	-	-	-	-	-	-	-	1.200	0.0001120	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002430	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	0.000207	0.000220	0.0155	0.0168	-	-	-	-	-	-	0.0000054	0.0000111	14.8
Mean	-	-	0.000261	0.000329	0.0283	0.0293	-	-	-	-	-	-	0.0000139	0.0000164	22.5
Median	-	-	0.000240	0.000310	0.0215	0.0229	-	-	-	-	-	-	0.0000140	0.0000148	22.5
Maximum	-	-	0.000460	0.000570	0.0774	0.0759	-	-	-	-	-	-	0.0000221	0.0000233	42.2
25th percentile	-	-	0.000210	0.000292	0.0176	0.0187	-	-	-	-	-	-	0.0000114	0.0000127	17.3
75th percentile	-	-	0.000258	0.000343	0.0329	0.0338	-	-	-	-	-	-	0.0000171	0.0000202	25.5
95th percentile	-	-	0.000399	0.000482	0.0581	0.0571	-	-	-	-	-	-	0.0000202	0.0000229	33.0
Standard deviation	-	-	0.000074	0.000091	0.0178	0.0169	-	-	-	-	-	-	0.0000046	0.0000044	7.0
Standard error	-	-	0.000021	0.000026	0.0051	0.0049	-	-	-	-	-	-	0.0000013	0.0000013	1.6
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	18
Number of non-detects	12	12	0	0	0	0	12	12	12	12	12	12	0	0	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0

Notes:

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19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.005	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.000389	-	0.00032	-	-	-	-	0.003174	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00197	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	15.3	-	-	-	-	0.00118	0.00143	0.061	0.131	-	-	-	-	1.22	1.31
Mean	24.0	-	-	-	-	0.00200	0.00230	0.084	0.183	-	-	-	-	1.75	1.87
Median	24.4	-	-	-	-	0.00198	0.00228	0.076	0.156	-	-	-	-	1.74	1.89
Maximum	42.2	-	-	-	-	0.00285	0.00331	0.174	0.400	-	-	-	-	3.06	2.96
25th percentile	17.8	-	-	-	-	0.00152	0.00171	0.062	0.147	-	-	-	-	1.38	1.45
75th percentile	26.5	-	-	-	-	0.00256	0.00293	0.090	0.178	-	-	-	-	1.97	2.10
95th percentile	35.8	-	-	-	-	0.00276	0.00322	0.142	0.310	-	-	-	-	2.34	2.51
Standard deviation	7.6	-	-	-	-	0.00058	0.00067	0.033	0.074	-	-	-	-	0.45	0.46
Standard error	2.2	-	-	-	-	0.00017	0.00019	0.009	0.021	-	-	-	-	0.10	0.13
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	18	12
Number of non-detects	0	12	12	11	10	0	0	0	0	12	9	12	12	0	0
Percentage of non-detects	0.0	100.0	100.0	91.7	83.3	0.0	0.0	0.0	0.0	100.0	75.0	100.0	100.0	0.0	0.0

Notes:

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19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.79156	-	0.0012500	-	7.600000	0.00150	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.00725	-	-	-	46.000000	0.02500	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Minimum	0.00588	0.00828	-	-	0.000626	0.000621	-	-	-	-	0.159	0.168	0.000532	0.000603	2.90
Mean	0.05126	0.05817	-	-	0.000920	0.000945	-	-	-	-	0.276	0.280	0.004814	0.004993	3.75
Median	0.02835	0.03930	-	-	0.000828	0.000857	-	-	-	-	0.228	0.226	0.002240	0.002520	3.73
Maximum	0.26600	0.26600	-	-	0.001530	0.001570	-	-	-	-	0.563	0.564	0.023000	0.023600	4.47
25th percentile	0.01714	0.02070	-	-	0.000752	0.000741	-	-	-	-	0.179	0.188	0.001068	0.001220	3.53
75th percentile	0.04975	0.06565	-	-	0.001038	0.001102	-	-	-	-	0.313	0.317	0.004938	0.005198	4.10
95th percentile	0.16606	0.16678	-	-	0.001299	0.001350	-	-	-	-	0.548	0.530	0.015773	0.016114	4.46
Standard deviation	0.07151	0.07001	-	-	0.000249	0.000266	-	-	-	-	0.138	0.131	0.006413	0.006523	0.49
Standard error	0.02064	0.02021	-	-	0.000072	0.000077	-	-	-	-	0.040	0.038	0.001851	0.001883	0.14
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	12	12	0	0	8	7	12	12	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	66.7	58.3	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

455 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

19 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Permit-15335

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.12	-	-	2.78	3.10	0.0468	0.0471	3.12	3.67	-	-	-	-	0.00015	0.000350
Mean	3.92	-	-	12.44	12.77	0.0837	0.0851	11.50	11.86	-	-	-	-	0.00043	0.001403
Median	3.86	-	-	8.45	8.62	0.0751	0.0760	8.84	9.09	-	-	-	-	0.00032	0.001275
Maximum	4.64	-	-	41.20	40.60	0.1800	0.1820	36.10	36.80	-	-	-	-	0.00130	0.003300
25th percentile	3.68	-	-	3.97	4.08	0.0550	0.0571	4.18	4.35	-	-	-	-	0.00015	0.000665
75th percentile	4.27	-	-	14.20	15.00	0.0936	0.0959	13.27	14.03	-	-	-	-	0.00060	0.002093
95th percentile	4.63	-	-	33.83	34.55	0.1464	0.1528	28.95	29.70	-	-	-	-	0.00094	0.002750
Standard deviation	0.46	-	-	11.70	11.72	0.0377	0.0391	9.75	9.87	-	-	-	-	0.00034	0.000929
Standard error	0.13	-	-	3.38	3.38	0.0109	0.0113	2.82	2.85	-	-	-	-	0.00010	0.000268
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	12	12	0	0	0	0	0	0	12	12	12	11	5	0
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	91.7	41.7	0.0

Notes:

455	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.21 (Cont'd.)

	Metals								Nutrients				
	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0077	-	-	-	1.6900	3.0000	0.02000	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.0165000	-	-	0.0296	-	-	-	8.7700	32.8000	0.06000	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.0075000	-	0.06000	-	-	-	-	-	-	-	-	-
Permit-15335	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.0000200	0.0000230	-	-	-	-	-	-	0.0025	0.0475	-	-	0.0010
Mean	0.0000308	0.0000329	-	-	-	-	-	-	0.0153	0.4411	-	-	0.0027
Median	0.0000290	0.0000320	-	-	-	-	-	-	0.0091	0.1445	-	-	0.0026
Maximum	0.0000442	0.0000484	-	-	-	-	-	-	0.0677	2.2900	-	-	0.0050
25th percentile	0.0000250	0.0000270	-	-	-	-	-	-	0.0077	0.0671	-	-	0.0018
75th percentile	0.0000368	0.0000380	-	-	-	-	-	-	0.0145	0.3582	-	-	0.0040
95th percentile	0.0000424	0.0000449	-	-	-	-	-	-	0.0436	1.7180	-	-	0.0048
Standard deviation	0.0000076	0.0000076	-	-	-	-	-	-	0.0177	0.6856	-	-	0.0014
Standard error	0.0000022	0.0000022	-	-	-	-	-	-	0.0051	0.1979	-	-	0.0004
Sample size	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of non-detects	0	0	12	11	10	12	12	12	2	0	8	12	3
Percentage of non-detects	0.0	0.0	100.0	91.7	83.3	100.0	100.0	100.0	16.7	0.0	66.7	100.0	25.0

Notes:

455	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
19	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Permit-15335
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.22 2025 Kemess Water Quality Data – (WR-S1).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309.0	-	0.221
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.248	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WR-S1	2025-06-02 10:10:00	VA25B3466-005	4.77	164	1.5	2.84	8.00	-	72.7	-	0.25	-	76.9	82.9	14.3	0.0173	0.129
WR-S1	2025-07-01 07:50:00	VA25B6420-005	3.76	179	3.4	8.48	8.23	7.54	74.1	0.025	0.25	0.035	80.8	86.9	14.4	0.0169	0.443
		Minimum	3.76	164	1.5	2.84	8.00	7.54	72.7	-	-	0.035	76.9	82.9	14.30	0.0169	0.129
		Mean	4.26	172	2.5	5.66	8.12	7.54	73.4	-	-	0.035	78.8	84.9	14.40	0.0171	0.286
		Median	4.26	172	2.5	5.66	8.12	7.54	73.4	-	-	0.035	78.8	84.9	14.40	0.0171	0.286
		Maximum	4.77	179	3.4	8.48	8.23	7.54	74.1	-	-	0.035	80.8	86.9	14.40	0.0173	0.443
		25th percentile	4.01	168	2.0	4.25	8.06	7.54	73.1	-	-	0.035	77.9	83.9	14.30	0.0170	0.208
		75th percentile	4.52	175	2.9	7.07	8.17	7.54	73.8	-	-	0.035	79.8	85.9	14.40	0.0172	0.364
		95th percentile	4.72	178	3.3	8.20	8.22	7.54	74.0	-	-	0.035	80.6	86.7	14.40	0.0173	0.427
		Standard deviation	0.71	11	1.3	3.99	0.16	-	1.0	-	-	-	2.8	2.8	0.10	0.0003	0.222
		Standard error	0.50	8	0.9	2.82	0.12	-	0.7	-	-	-	1.9	2.0	0.05	0.0002	0.157
		Sample size	2	2	2	2	2	1	2	1	2	1	2	2	2	2	2
		Number of non-detects	0	0	1	0	0	0	0	1	2	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	50.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

70	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
3	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.22 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001740	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0004490	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WR-S1 2025-06-02 10:10:00 VA25B3466-005	0.00022	0.00023	0.00148	0.00183	0.0180	0.0198	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000080	0.0000125	25.9
WR-S1 2025-07-01 07:50:00 VA25B6420-005	0.00029	0.00032	0.00187	0.00246	0.0192	0.0247	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000076	0.0000112	27.5
Minimum	0.00022	0.00023	0.00148	0.00183	0.0180	0.0198	-	-	-	-	-	-	0.0000076	0.0000112	25.9
Mean	0.00026	0.00028	0.00167	0.00215	0.0186	0.0222	-	-	-	-	-	-	0.0000078	0.0000118	26.7
Median	0.00026	0.00028	0.00167	0.00215	0.0186	0.0222	-	-	-	-	-	-	0.0000078	0.0000118	26.7
Maximum	0.00029	0.00032	0.00187	0.00246	0.0192	0.0247	-	-	-	-	-	-	0.0000080	0.0000125	27.5
25th percentile	0.00024	0.00025	0.00158	0.00199	0.0183	0.0210	-	-	-	-	-	-	0.0000077	0.0000115	26.3
75th percentile	0.00027	0.00030	0.00177	0.00230	0.0189	0.0235	-	-	-	-	-	-	0.0000079	0.0000122	27.1
95th percentile	0.00029	0.00032	0.00185	0.00243	0.0191	0.0245	-	-	-	-	-	-	0.0000080	0.0000124	27.4
Standard deviation	0.00005	0.00006	0.00028	0.00045	0.0008	0.0035	-	-	-	-	-	-	0.0000003	0.0000009	1.1
Standard error	0.00003	0.00004	0.00019	0.00031	0.0006	0.0024	-	-	-	-	-	-	0.0000002	0.0000007	0.8
Sample size	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of non-detects	0	0	0	0	0	0	2	2	2	2	2	2	0	0	0
Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0

Notes:

70	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
3	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.22 (Cont'd.)

			Metals													
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
		Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00046	-	0.00116	-	-	-	-	0.003907	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00691	-	0.350	1.000	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WR-S1	2025-06-02 10:10:00	VA25B3466-005	28.1	0.00025	0.00025	0.00005	0.00005	0.00153	0.00208	0.013	0.097	0.000025	0.000025	0.0005	0.0005	2.97	3.09
WR-S1	2025-07-01 07:50:00	VA25B6420-005	29.3	0.00025	0.00025	0.00005	0.00020	0.00125	0.00266	0.016	0.389	0.000025	0.000166	0.0005	0.0005	2.96	3.33
		Minimum	28.1	-	-	-	0.00005	0.00125	0.00208	0.013	0.097	-	0.000025	-	-	2.96	3.09
		Mean	28.7	-	-	-	0.00013	0.00139	0.00237	0.014	0.243	-	0.000096	-	-	2.96	3.21
		Median	28.7	-	-	-	0.00013	0.00139	0.00237	0.014	0.243	-	0.000096	-	-	2.96	3.21
		Maximum	29.3	-	-	-	0.00020	0.00153	0.00266	0.016	0.389	-	0.000166	-	-	2.97	3.33
		25th percentile	28.4	-	-	-	0.00009	0.00132	0.00222	0.014	0.170	-	0.000060	-	-	2.96	3.15
		75th percentile	29.0	-	-	-	0.00016	0.00146	0.00252	0.015	0.316	-	0.000131	-	-	2.97	3.27
		95th percentile	29.2	-	-	-	0.00019	0.00152	0.00263	0.016	0.374	-	0.000159	-	-	2.97	3.32
		Standard deviation	0.8	-	-	-	0.00011	0.00020	0.00041	0.002	0.206	-	0.000100	-	-	0.01	0.17
		Standard error	0.6	-	-	-	0.00008	0.00014	0.00029	0.002	0.146	-	0.000070	-	-	0.01	0.12
		Sample size	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		Number of non-detects	0	2	2	2	1	0	0	0	0	2	1	2	2	0	0
		Percentage of non-detects	0.0	100.0	100.0	100.0	50.0	0.0	0.0	0.0	0.0	100.0	50.0	100.0	100.0	0.0	0.0

Notes:

70	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
3	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.22 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.9434	-	0.0012500	-	7.600000	0.00190	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.3874	-	-	-	46.000000	0.03080	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.016000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.034000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.284000	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WR-S1 2025-06-02 10:10:00 VA25B3466-005	0.0137	0.0214	0.0000025	0.0000025	0.000742	0.000796	0.00025	0.00025	0.025	0.025	0.32	0.346	0.000479	0.000498	3.58
WR-S1 2025-07-01 07:50:00 VA25B6420-005	0.0137	0.0275	0.0000025	0.0000025	0.000896	0.000927	0.00025	0.00025	0.025	0.025	0.36	0.399	0.000522	0.000568	3.40
Minimum	0.0137	0.0214	-	-	0.000742	0.000796	-	-	-	-	0.32	0.346	0.000479	0.000498	3.40
Mean	0.0137	0.0244	-	-	0.000819	0.000862	-	-	-	-	0.34	0.372	0.000500	0.000533	3.49
Median	0.0137	0.0244	-	-	0.000819	0.000862	-	-	-	-	0.34	0.372	0.000500	0.000533	3.49
Maximum	0.0137	0.0275	-	-	0.000896	0.000927	-	-	-	-	0.36	0.399	0.000522	0.000568	3.58
25th percentile	0.0137	0.0229	-	-	0.000781	0.000829	-	-	-	-	0.33	0.359	0.000490	0.000516	3.44
75th percentile	0.0137	0.0260	-	-	0.000857	0.000894	-	-	-	-	0.35	0.386	0.000511	0.000550	3.54
95th percentile	0.0137	0.0272	-	-	0.000888	0.000920	-	-	-	-	0.36	0.396	0.000520	0.000564	3.57
Standard deviation	0.0000	0.0043	-	-	0.000109	0.000093	-	-	-	-	0.03	0.037	0.000030	0.000049	0.13
Standard error	0.0000	0.0031	-	-	0.000077	0.000065	-	-	-	-	0.02	0.027	0.000022	0.000035	0.09
Sample size	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of non-detects	0	0	2	2	0	0	2	2	2	2	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

70	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
3	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.22 (Cont'd.)

			Metals													
			Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
		Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**															
WR-S1	2025-06-02 10:10:00	VA25B3466-005	3.69	0.000005	0.000005	2.00	2.10	0.0825	0.0872	4.27	4.92	0.000005	0.000005	0.00005	0.00005	0.00046	0.00278
WR-S1	2025-07-01 07:50:00	VA25B6420-005	4.44	0.000005	0.000005	2.17	2.18	0.0904	0.0916	4.76	4.95	0.000005	0.000005	0.00005	0.00005	0.00066	0.01000
		Minimum	3.69	-	-	2.00	2.10	0.0825	0.0872	4.27	4.92	-	-	-	-	0.00046	0.00278
		Mean	4.07	-	-	2.08	2.14	0.0864	0.0894	4.52	4.94	-	-	-	-	0.00056	0.00639
		Median	4.07	-	-	2.08	2.14	0.0864	0.0894	4.52	4.94	-	-	-	-	0.00056	0.00639
		Maximum	4.44	-	-	2.17	2.18	0.0904	0.0916	4.76	4.95	-	-	-	-	0.00066	0.01000
		25th percentile	3.88	-	-	2.04	2.12	0.0845	0.0883	4.39	4.93	-	-	-	-	0.00051	0.00459
		75th percentile	4.25	-	-	2.13	2.16	0.0884	0.0905	4.64	4.94	-	-	-	-	0.00061	0.00819
		95th percentile	4.40	-	-	2.16	2.18	0.0900	0.0914	4.74	4.95	-	-	-	-	0.00065	0.00964
		Standard deviation	0.53	-	-	0.12	0.06	0.0056	0.0031	0.35	0.02	-	-	-	-	0.00014	0.00511
		Standard error	0.38	-	-	0.08	0.04	0.0039	0.0022	0.25	0.02	-	-	-	-	0.00010	0.00361
		Sample size	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		Number of non-detects	0	2	2	0	0	0	0	0	0	2	2	2	2	0	0
		Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

70	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
3	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.22 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0119	-	-	-	1.8800	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0451	-	-	-	11.4000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WR-S1	2025-06-02 10:10:00	VA25B3466-005	0.000103	0.000098	0.00025	0.00054	0.0005	0.0015	0.0001	0.0001	0.0056	0.0214	0.0005	0.0005	0.0032
WR-S1	2025-07-01 07:50:00	VA25B6420-005	0.000093	0.000097	0.00025	0.00124	0.0005	0.0015	0.0001	0.0001	0.0025	0.0141	0.0005	0.0005	0.0010
		Minimum	0.000093	0.0000970	-	0.00054	-	-	-	-	0.0025	0.0141	-	-	0.0010
		Mean	0.000098	0.0000980	-	0.00089	-	-	-	-	0.0040	0.0177	-	-	0.0021
		Median	0.000098	0.0000980	-	0.00089	-	-	-	-	0.0040	0.0177	-	-	0.0021
		Maximum	0.000103	0.0000980	-	0.00124	-	-	-	-	0.0056	0.0214	-	-	0.0032
		25th percentile	0.000096	0.0000970	-	0.00071	-	-	-	-	0.0033	0.0159	-	-	0.0016
		75th percentile	0.000100	0.0000980	-	0.00106	-	-	-	-	0.0048	0.0196	-	-	0.0027
		95th percentile	0.000102	0.0000980	-	0.00121	-	-	-	-	0.0054	0.0210	-	-	0.0031
		Standard deviation	0.000007	0.0000010	-	0.00049	-	-	-	-	0.0022	0.0052	-	-	0.0016
		Standard error	0.000005	0.0000005	-	0.00035	-	-	-	-	0.0015	0.0036	-	-	0.0011
		Sample size	2	2	2	2	2	2	2	2	2	2	2	2	2
		Number of non-detects	0	0	2	0	2	2	2	2	1	0	2	2	1
		Percentage of non-detects	0.0	0.0	100.0	0.0	100.0	100.0	100.0	100.0	50.0	0.0	100.0	100.0	50.0

Notes:

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3	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.23 2025 Kemess Water Quality Data – (WR-S2).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	218.0	-	0.1687
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.424	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WR-S2	2025-04-06 08:00:00	VA25A7989-005	2.77	561	1.5	1.34	8.24	7.41	256.0	-	1.25	-	239	237.0	57.6	0.0020	0.1260
WR-S2	2025-05-06 13:15:00	VA25B0742-005	6.53	108	4.4	9.74	7.77	-	41.5	-	0.25	-	51	53.6	12.8	0.0456	0.4790
WR-S2	2025-06-02 10:45:00	VA25B3466-006	3.27	310	1.5	0.46	8.23	-	132.0	-	0.25	-	116	126.0	38.8	0.0035	0.0168
WR-S2	2025-07-01 08:10:00	VA25B6420-006	3.24	327	1.5	0.44	8.42	7.18	136.0	0.025	0.25	0.093	125	134.0	30.2	0.0027	0.0147
		Minimum	2.77	108	-	0.44	7.77	7.18	41.5	-	-	0.093	51	53.6	12.8	0.0020	0.0147
		Mean	3.95	326	-	3.00	8.16	7.30	141.4	-	-	0.093	133	137.7	34.9	0.0134	0.1591
		Median	3.26	318	-	0.90	8.23	7.30	134.0	-	-	0.093	120	130.0	34.5	0.0031	0.0714
		Maximum	6.53	561	-	9.74	8.42	7.41	256.0	-	-	0.093	239	237.0	57.6	0.0456	0.4790
		25th percentile	3.12	260	-	0.46	8.12	7.24	109.4	-	-	0.093	100	107.9	25.8	0.0025	0.0163
		75th percentile	4.08	386	-	3.44	8.29	7.35	166.0	-	-	0.093	154	159.8	43.5	0.0140	0.2142
		95th percentile	6.04	526	-	8.48	8.39	7.40	238.0	-	-	0.093	222	221.5	54.8	0.0393	0.4260
		Standard deviation	1.73	185	-	4.52	0.28	0.16	88.0	-	-	-	78	75.5	18.6	0.0214	0.2195
		Standard error	0.87	93	-	2.26	0.14	0.12	44.0	-	-	-	39	37.7	9.3	0.0107	0.1097
		Sample size	4	4	4	4	4	2	4	1	4	1	4	4	4	4	4
		Number of non-detects	0	0	3	0	0	0	0	1	4	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	75.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

149	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.23 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001290	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0002940	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WR-S2 2025-04-06 08:00:00 VA25A7989-005	0.00005	0.00011	0.00045	0.00076	0.0748	0.0759	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000067	81.0
WR-S2 2025-05-06 13:15:00 VA25B0742-005	0.00005	0.00005	0.00017	0.00025	0.0146	0.0198	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000051	0.0000105	17.8
WR-S2 2025-06-02 10:45:00 VA25B3466-006	0.00031	0.00033	0.00107	0.00117	0.0522	0.0513	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	39.9
WR-S2 2025-07-01 08:10:00 VA25B6420-006	0.00029	0.00032	0.00119	0.00121	0.0542	0.0560	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	43.6
Minimum	0.00005	0.00005	0.00017	0.00025	0.0146	0.0198	-	-	-	-	-	-	-	0.0000025	17.8
Mean	0.00017	0.00020	0.00072	0.00085	0.0490	0.0507	-	-	-	-	-	-	-	0.0000056	45.6
Median	0.00017	0.00022	0.00076	0.00096	0.0532	0.0537	-	-	-	-	-	-	-	0.0000046	41.8
Maximum	0.00031	0.00033	0.00119	0.00121	0.0748	0.0759	-	-	-	-	-	-	-	0.0000105	81.0
25th percentile	0.00005	0.00010	0.00038	0.00063	0.0428	0.0434	-	-	-	-	-	-	-	0.0000025	34.4
75th percentile	0.00030	0.00032	0.00110	0.00118	0.0594	0.0610	-	-	-	-	-	-	-	0.0000076	53.0
95th percentile	0.00031	0.00033	0.00117	0.00120	0.0717	0.0729	-	-	-	-	-	-	-	0.0000099	75.4
Standard deviation	0.00014	0.00014	0.00049	0.00045	0.0251	0.0232	-	-	-	-	-	-	-	0.0000038	26.2
Standard error	0.00007	0.00007	0.00024	0.00022	0.0125	0.0116	-	-	-	-	-	-	-	0.0000019	13.1
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	2	1	0	0	0	0	4	4	4	4	4	4	3	2	0
Percentage of non-detects	50.0	25.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	75.0	50.0	0.0

Notes:

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4 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.23 (Cont'd.)

	Metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00039	-	0.00066	-	-	-	-	0.003929	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00402	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WR-S2 2025-04-06 08:00:00 VA25A7989-005	81.0	0.00025	0.00025	0.00005	0.00005	0.00073	0.00122	0.005	0.190	0.000025	0.000025	0.0005	0.0012	8.96	8.54
WR-S2 2025-05-06 13:15:00 VA25B0742-005	18.7	0.00025	0.00071	0.00005	0.00024	0.00242	0.00381	0.048	0.484	0.000025	0.000150	0.0005	0.0005	1.59	1.68
WR-S2 2025-06-02 10:45:00 VA25B3466-006	44.1	0.00025	0.00025	0.00005	0.00005	0.00179	0.00189	0.005	0.022	0.000025	0.000025	0.0005	0.0005	4.05	3.77
WR-S2 2025-07-01 08:10:00 VA25B6420-006	47.0	0.00025	0.00025	0.00005	0.00005	0.00176	0.00187	0.005	0.020	0.000025	0.000025	0.0005	0.0005	3.89	4.16
Minimum	18.7	-	-	-	-	0.00073	0.00122	-	0.020	-	-	-	-	1.59	1.68
Mean	47.7	-	-	-	-	0.00167	0.00220	-	0.179	-	-	-	-	4.62	4.54
Median	45.5	-	-	-	-	0.00178	0.00188	-	0.106	-	-	-	-	3.97	3.96
Maximum	81.0	-	-	-	-	0.00242	0.00381	-	0.484	-	-	-	-	8.96	8.54
25th percentile	37.8	-	-	-	-	0.00150	0.00171	-	0.022	-	-	-	-	3.32	3.25
75th percentile	55.5	-	-	-	-	0.00195	0.00237	-	0.264	-	-	-	-	5.28	5.26
95th percentile	75.9	-	-	-	-	0.00233	0.00352	-	0.440	-	-	-	-	8.22	7.88
Standard deviation	25.6	-	-	-	-	0.00070	0.00112	-	0.218	-	-	-	-	3.10	2.88
Standard error	12.8	-	-	-	-	0.00035	0.00056	-	0.109	-	-	-	-	1.55	1.44
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	3	4	3	0	0	3	0	4	3	4	3	0	0
Percentage of non-detects	0.0	100.0	75.0	100.0	75.0	0.0	0.0	75.0	0.0	100.0	75.0	100.0	75.0	0.0	0.0

Notes:

149	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.23 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.82940	-	0.0012500	-	7.60000	0.00210	-	-	-	-	-	-	0.002000	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.10202	-	-	-	46.00000	0.03040	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WR-S2 2025-04-06 08:00:00 VA25A7989-005	0.01690	0.08380	0.0000025	0.0000025	0.001740	0.00169	0.00025	0.00025	0.025	0.025	0.917	0.875	0.000903	0.000962	5.04
WR-S2 2025-05-06 13:15:00 VA25B0742-005	0.00320	0.01240	0.0000025	0.0000025	0.000556	0.00061	0.00025	0.00068	0.025	0.025	0.246	0.287	0.000142	0.000113	3.58
WR-S2 2025-06-02 10:45:00 VA25B3466-006	0.00290	0.00477	0.0000025	0.0000025	0.003710	0.00403	0.00025	0.00025	0.025	0.025	0.660	0.651	0.002030	0.001990	2.60
WR-S2 2025-07-01 08:10:00 VA25B6420-006	0.00431	0.00545	0.0000025	0.0000025	0.002990	0.00315	0.00025	0.00025	0.025	0.025	0.635	0.585	0.001340	0.001360	2.76
Minimum	0.00290	0.00477	-	-	0.000556	0.00061	-	-	-	-	0.246	0.287	0.000142	0.000113	2.60
Mean	0.00683	0.02660	-	-	0.002249	0.00237	-	-	-	-	0.615	0.600	0.001104	0.001106	3.50
Median	0.00375	0.00892	-	-	0.002365	0.00242	-	-	-	-	0.647	0.618	0.001122	0.001161	3.17
Maximum	0.01690	0.08380	-	-	0.003710	0.00403	-	-	-	-	0.917	0.875	0.002030	0.001990	5.04
25th percentile	0.00313	0.00528	-	-	0.001444	0.00142	-	-	-	-	0.538	0.510	0.000713	0.000750	2.72
75th percentile	0.00746	0.03025	-	-	0.003170	0.00337	-	-	-	-	0.724	0.707	0.001512	0.001518	3.95
95th percentile	0.01501	0.07309	-	-	0.003602	0.00390	-	-	-	-	0.878	0.841	0.001926	0.001895	4.82
Standard deviation	0.00674	0.03829	-	-	0.001392	0.00152	-	-	-	-	0.277	0.243	0.000791	0.000786	1.12
Standard error	0.00337	0.01914	-	-	0.000696	0.00076	-	-	-	-	0.138	0.121	0.000396	0.000393	0.56
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	4	4	0	0	4	3	4	4	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	75.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

149	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.23 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.2500	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WR-S2 2025-04-06 08:00:00 VA25A7989-005	5.15	0.000005	0.000005	33.7	31.40	0.4760	0.472	19.10	19.40	0.000005	0.000005	0.00005	0.00005	0.00015	0.00299
WR-S2 2025-05-06 13:15:00 VA25B0742-005	4.14	0.000005	0.000014	1.7	1.81	0.0484	0.049	4.14	4.46	0.000005	0.000005	0.00005	0.00005	0.00174	0.01070
WR-S2 2025-06-02 10:45:00 VA25B3466-006	2.55	0.000005	0.000005	21.0	20.80	0.3070	0.325	13.00	13.90	0.000005	0.000005	0.00005	0.00005	0.00015	0.00044
WR-S2 2025-07-01 08:10:00 VA25B6420-006	3.03	0.000005	0.000005	17.4	18.10	0.3320	0.336	10.30	10.70	0.000005	0.000005	0.00005	0.00005	0.00015	0.00032
Minimum	2.55	-	-	1.7	1.81	0.0484	0.049	4.14	4.46	-	-	-	-	-	0.00032
Mean	3.72	-	-	18.4	18.03	0.2908	0.296	11.63	12.12	-	-	-	-	-	0.00361
Median	3.58	-	-	19.2	19.45	0.3195	0.330	11.65	12.30	-	-	-	-	-	0.00172
Maximum	5.15	-	-	33.7	31.40	0.4760	0.472	19.10	19.40	-	-	-	-	-	0.01070
25th percentile	2.91	-	-	13.5	14.03	0.2424	0.256	8.76	9.14	-	-	-	-	-	0.00041
75th percentile	4.39	-	-	24.2	23.45	0.3680	0.370	14.53	15.28	-	-	-	-	-	0.00492
95th percentile	5.00	-	-	31.8	29.81	0.4544	0.452	18.19	18.57	-	-	-	-	-	0.00954
Standard deviation	1.16	-	-	13.2	12.24	0.1780	0.177	6.21	6.24	-	-	-	-	-	0.00488
Standard error	0.58	-	-	6.6	6.12	0.0890	0.089	3.10	3.12	-	-	-	-	-	0.00244
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	4	3	0	0	0	0	0	0	4	4	4	4	3	0
Percentage of non-detects	0.0	100.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	75.0	0.0

Notes:

149 underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit

4 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum

0 value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)

0 value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)

1 General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.23 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0100	-	-	-	1.8300	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0351	-	-	-	13.0000	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WR-S2	2025-04-06 08:00:00	VA25A7989-005	0.000580	0.000580	0.00025	0.00073	0.0005	0.0015	0.0001	0.0001	0.0091	0.1700	0.0025	0.0005	0.0037
WR-S2	2025-05-06 13:15:00	VA25B0742-005	0.000028	0.000038	0.00025	0.00109	0.0005	0.0015	0.0001	0.0001	0.0025	0.0176	0.0005	0.0005	0.0055
WR-S2	2025-06-02 10:45:00	VA25B3466-006	0.000365	0.000372	0.00062	0.00077	0.0005	0.0015	0.0001	0.0001	0.0025	0.0590	0.0005	0.0005	0.0045
WR-S2	2025-07-01 08:10:00	VA25B6420-006	0.000264	0.000269	0.00067	0.00073	0.0005	0.0015	0.0001	0.0001	0.0025	0.0481	0.0005	0.0005	0.0028
		Minimum	0.000028	0.000038	0.00025	0.00073	-	-	-	-	-	0.0176	-	-	0.0028
		Mean	0.000309	0.000315	0.00045	0.00083	-	-	-	-	-	0.0737	-	-	0.0041
		Median	0.000314	0.000320	0.00044	0.00075	-	-	-	-	-	0.0536	-	-	0.0041
		Maximum	0.000580	0.000580	0.00067	0.00109	-	-	-	-	-	0.1700	-	-	0.0055
		25th percentile	0.000205	0.000211	0.00025	0.00073	-	-	-	-	-	0.0405	-	-	0.0035
		75th percentile	0.000419	0.000424	0.00063	0.00085	-	-	-	-	-	0.0867	-	-	0.0047
		95th percentile	0.000548	0.000549	0.00066	0.00104	-	-	-	-	-	0.1533	-	-	0.0053
		Standard deviation	0.000229	0.000225	0.00023	0.00017	-	-	-	-	-	0.0666	-	-	0.0011
		Standard error	0.000115	0.000113	0.00011	0.00009	-	-	-	-	-	0.0333	-	-	0.0006
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	2	0	4	4	4	4	3	0	4	4	0
		Percentage of non-detects	0.0	0.0	50.0	0.0	100.0	100.0	100.0	100.0	75.0	0.0	100.0	100.0	0.0

Notes:

149	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
4	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.24 2025 Kemess Water Quality Data – (WR-S3).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.25	2.5	0.1	0.6	0.6	1.5	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	429	-	0.1919
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.615	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WR-S3	2025-04-06 08:25:00	VA25A7989-006	2.93	885	1.5	0.13	8.29	7.46	247	-	1.25	-	292	294	228	0.0023	0.0038
WR-S3	2025-05-06 13:30:00	VA25B0742-006	2.65	750	3.6	0.40	8.27	-	216	-	1.25	-	208	217	162	0.0021	0.0158
WR-S3	2025-06-02 11:10:00	VA25B3466-007	3.44	720	1.5	0.17	8.35	-	206	-	1.25	-	184	216	171	0.0030	0.0124
WR-S3	2025-07-01 08:30:00	VA25B6420-007	4.01	723	1.5	0.80	8.52	7.33	208	0.125	1.25	0.166	201	212	148	0.0066	0.0194
		Minimum	2.65	720	-	0.13	8.27	7.33	206	-	-	0.166	184	212	148	0.0021	0.0038
		Mean	3.26	770	-	0.38	8.36	7.39	219	-	-	0.166	221	235	177	0.0035	0.0128
		Median	3.18	736	-	0.29	8.32	7.39	212	-	-	0.166	204	216	166	0.0026	0.0141
		Maximum	4.01	885	-	0.80	8.52	7.46	247	-	-	0.166	292	294	228	0.0066	0.0194
		25th percentile	2.86	722	-	0.16	8.29	7.36	208	-	-	0.166	197	215	158	0.0022	0.0102
		75th percentile	3.58	784	-	0.50	8.39	7.43	224	-	-	0.166	229	236	185	0.0039	0.0167
		95th percentile	3.92	865	-	0.74	8.49	7.45	242	-	-	0.166	279	282	219	0.0061	0.0189
		Standard deviation	0.60	78	-	0.31	0.11	0.09	19	-	-	-	48	40	35	0.0021	0.0067
		Standard error	0.30	39	-	0.15	0.06	0.06	9	-	-	-	24	20	18	0.0011	0.0033
		Sample size	4	4	4	4	4	2	4	1	4	1	4	4	4	4	4
		Number of non-detects	0	0	3	0	0	0	0	1	4	0	0	0	0	0	0
		Percentage of non-detects	0.0	0.0	75.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.24 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0003310	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0011020	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WR-S3 2025-04-06 08:25:00 VA25A7989-006	0.00018	0.00019	0.00064	0.00066	0.0848	0.0888	0.00001	0.00001	0.000025	0.000025	0.020	0.020	0.0000057	0.0000025	101.0
WR-S3 2025-05-06 13:30:00 VA25B0742-006	0.00017	0.00022	0.00087	0.00084	0.0674	0.0669	0.00001	0.00001	0.000025	0.000025	0.021	0.024	0.0000025	0.0000025	71.3
WR-S3 2025-06-02 11:10:00 VA25B3466-007	0.00020	0.00023	0.00063	0.00065	0.0670	0.0689	0.00001	0.00001	0.000025	0.000025	0.020	0.026	0.0000025	0.0000050	62.3
WR-S3 2025-07-01 08:30:00 VA25B6420-007	0.00021	0.00023	0.00065	0.00066	0.0658	0.0687	0.00001	0.00001	0.000025	0.000025	0.021	0.022	0.0000025	0.0000025	69.5
Minimum	0.00017	0.00019	0.00063	0.00065	0.0658	0.0669	-	-	-	-	0.0200	0.020	-	-	62.3
Mean	0.00019	0.00022	0.00070	0.00070	0.0713	0.0733	-	-	-	-	0.0200	0.023	-	-	76.0
Median	0.00019	0.00022	0.00064	0.00066	0.0672	0.0688	-	-	-	-	0.0200	0.023	-	-	70.4
Maximum	0.00021	0.00023	0.00087	0.00084	0.0848	0.0888	-	-	-	-	0.0210	0.026	-	-	101.0
25th percentile	0.00018	0.00021	0.00064	0.00066	0.0667	0.0683	-	-	-	-	0.0200	0.022	-	-	67.7
75th percentile	0.00020	0.00023	0.00070	0.00070	0.0717	0.0739	-	-	-	-	0.0210	0.024	-	-	78.7
95th percentile	0.00021	0.00023	0.00084	0.00081	0.0822	0.0858	-	-	-	-	0.0210	0.026	-	-	96.5
Standard deviation	0.00002	0.00002	0.00012	0.00009	0.0091	0.0104	-	-	-	-	0.0010	0.003	-	-	17.1
Standard error	0.00001	0.00001	0.00006	0.00005	0.0045	0.0052	-	-	-	-	0.0003	0.001	-	-	8.5
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	0	0	0	0	4	4	4	4	0	0	3	4	0
Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	75.0	100.0	0.0

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.24 (Cont'd.)

			Metals													
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
		Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00066	-	0.00096	-	-	-	-	0.003996	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00572	-	0.350	1.000	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WR-S3	2025-04-06 08:25:00	VA25A7989-006	102.0	0.00025	0.00025	0.00005	0.00005	0.00146	0.00150	0.005	0.005	0.000025	0.000025	0.0064	0.0064	9.71	9.59
WR-S3	2025-05-06 13:30:00	VA25B0742-006	75.1	0.00025	0.00025	0.00005	0.00005	0.00172	0.00185	0.005	0.005	0.000025	0.000025	0.0063	0.0068	7.33	7.24
WR-S3	2025-06-02 11:10:00	VA25B3466-007	75.0	0.00025	0.00025	0.00005	0.00005	0.00197	0.00210	0.005	0.005	0.000025	0.000025	0.0061	0.0074	6.99	6.87
WR-S3	2025-07-01 08:30:00	VA25B6420-007	72.8	0.00025	0.00025	0.00005	0.00005	0.00210	0.00242	0.005	0.013	0.000025	0.000025	0.0063	0.0061	6.58	7.37
		Minimum	72.8	-	-	-	-	0.00146	0.00150	-	-	-	-	0.0061	0.0061	6.58	6.87
		Mean	81.2	-	-	-	-	0.00181	0.00197	-	-	-	-	0.0063	0.0067	7.65	7.77
		Median	75.0	-	-	-	-	0.00184	0.00198	-	-	-	-	0.0063	0.0066	7.16	7.30
		Maximum	102.0	-	-	-	-	0.00210	0.00242	-	-	-	-	0.0064	0.0074	9.71	9.59
		25th percentile	74.4	-	-	-	-	0.00165	0.00176	-	-	-	-	0.0063	0.0063	6.89	7.15
		75th percentile	81.8	-	-	-	-	0.00200	0.00218	-	-	-	-	0.0063	0.0069	7.93	7.92
		95th percentile	98.0	-	-	-	-	0.00208	0.00237	-	-	-	-	0.0064	0.0073	9.35	9.26
		Standard deviation	13.9	-	-	-	-	0.00028	0.00039	-	-	-	-	0.0001	0.0006	1.41	1.23
		Standard error	6.9	-	-	-	-	0.00014	0.00019	-	-	-	-	0.0001	0.0003	0.70	0.62
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	4	4	4	4	0	0	4	3	4	4	0	0	0	0
		Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	75.0	100.0	100.0	0.0	0.0	0.0	0.0

Notes:

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11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.24 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	1.41460	-	0.0012500	-	7.60000	0.00330	-	-	-	-	-	-	0.0020	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	2.56768	-	-	-	46.00000	0.05810	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WR-S3 2025-04-06 08:25:00 VA25A7989-006	0.00254	0.00355	0.0000025	0.0000025	0.01050	0.01050	0.00025	0.00025	0.025	0.025	0.765	0.734	0.0601	0.0640	4.10
WR-S3 2025-05-06 13:30:00 VA25B0742-006	0.00110	0.01350	0.0000025	0.0000025	0.01050	0.01200	0.00025	0.00025	0.025	0.025	0.661	0.607	0.0700	0.0677	4.39
WR-S3 2025-06-02 11:10:00 VA25B3466-007	0.00114	0.00464	0.0000025	0.0000025	0.00947	0.01070	0.00025	0.00025	0.025	0.025	0.668	0.690	0.0704	0.0734	4.27
WR-S3 2025-07-01 08:30:00 VA25B6420-007	0.00196	0.01610	0.0000025	0.0000025	0.00887	0.00945	0.00025	0.00025	0.025	0.025	0.702	0.671	0.0586	0.0605	3.87
Minimum	0.00110	0.00355	-	-	0.00887	0.00945	-	-	-	-	0.661	0.607	0.0586	0.0605	3.87
Mean	0.00168	0.00945	-	-	0.00984	0.01066	-	-	-	-	0.699	0.675	0.0648	0.0664	4.16
Median	0.00155	0.00907	-	-	0.00999	0.01060	-	-	-	-	0.685	0.680	0.0650	0.0658	4.18
Maximum	0.00254	0.01610	-	-	0.01050	0.01200	-	-	-	-	0.765	0.734	0.0704	0.0734	4.39
25th percentile	0.00113	0.00437	-	-	0.00932	0.01024	-	-	-	-	0.666	0.655	0.0597	0.0631	4.04
75th percentile	0.00211	0.01415	-	-	0.01050	0.01102	-	-	-	-	0.718	0.701	0.0701	0.0691	4.30
95th percentile	0.00245	0.01571	-	-	0.01050	0.01180	-	-	-	-	0.756	0.727	0.0703	0.0725	4.37
Standard deviation	0.00069	0.00629	-	-	0.00081	0.00105	-	-	-	-	0.048	0.053	0.0063	0.0055	0.23
Standard error	0.00035	0.00314	-	-	0.00040	0.00052	-	-	-	-	0.024	0.026	0.0031	0.0028	0.11
Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects	0	0	4	4	0	0	4	4	4	4	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

141	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.24 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code													
WR-S3	2025-04-06 08:25:00	VA25A7989-006	4.15	0.000005	0.000005	93.3	90.5	1.080	1.060	71.4	77.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WR-S3	2025-05-06 13:30:00	VA25B0742-006	4.33	0.000005	0.000005	82.3	87.8	0.749	0.798	54.6	56.9	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WR-S3	2025-06-02 11:10:00	VA25B3466-007	4.21	0.000005	0.000005	82.7	86.4	0.745	0.826	60.4	63.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WR-S3	2025-07-01 08:30:00	VA25B6420-007	4.38	0.000005	0.000005	76.9	80.1	0.789	0.823	50.0	56.6	0.000005	0.000005	0.00005	0.00005	0.00015	0.00047
Minimum			4.15	-	-	76.9	80.1	0.745	0.798	50.0	56.6	-	-	-	-	-	-
Mean			4.27	-	-	83.8	86.2	0.841	0.877	59.1	63.6	-	-	-	-	-	-
Median			4.27	-	-	82.5	87.1	0.769	0.825	57.5	60.1	-	-	-	-	-	-
Maximum			4.38	-	-	93.3	90.5	1.080	1.060	71.4	77.4	-	-	-	-	-	-
25th percentile			4.20	-	-	80.9	84.8	0.748	0.817	53.5	56.8	-	-	-	-	-	-
75th percentile			4.34	-	-	85.4	88.5	0.862	0.884	63.1	66.9	-	-	-	-	-	-
95th percentile			4.37	-	-	91.7	90.1	1.036	1.025	69.8	75.3	-	-	-	-	-	-
Standard deviation			0.11	-	-	6.9	4.4	0.161	0.123	9.2	9.7	-	-	-	-	-	-
Standard error			0.05	-	-	3.4	2.2	0.080	0.061	4.6	4.9	-	-	-	-	-	-
Sample size			4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of non-detects			0	4	4	0	0	0	0	0	0	4	4	4	4	4	3
Percentage of non-detects			0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	75.0

Notes:

141	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.24 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.025	0.005	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0260	-	-	-	1.8800	3.00	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.01650	-	-	0.0877	-	-	-	13.0000	32.80	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.00750	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WR-S3	2025-04-06 08:25:00	VA25A7989-006	0.00172	0.00171	0.00110	0.00123	0.0005	0.0015	0.0001	0.0001	0.0025	5.27	0.0025	0.0053	0.0071
WR-S3	2025-05-06 13:30:00	VA25B0742-006	0.00145	0.00161	0.00240	0.00247	0.0005	0.0015	0.0001	0.0001	0.0025	5.37	0.0025	0.0050	0.0080
WR-S3	2025-06-02 11:10:00	VA25B3466-007	0.00134	0.00144	0.00145	0.00162	0.0005	0.0015	0.0001	0.0001	0.0025	3.16	0.0025	0.0036	0.0097
WR-S3	2025-07-01 08:30:00	VA25B6420-007	0.00132	0.00132	0.00133	0.00149	0.0005	0.0015	0.0001	0.0001	0.0025	2.81	0.0025	0.0027	0.0206
		Minimum	0.00132	0.00132	0.00110	0.00123	-	-	-	-	-	2.81	-	0.0027	0.0071
		Mean	0.00146	0.00152	0.00157	0.00170	-	-	-	-	-	4.15	-	0.0042	0.0114
		Median	0.00140	0.00153	0.00139	0.00156	-	-	-	-	-	4.22	-	0.0043	0.0088
		Maximum	0.00172	0.00171	0.00240	0.00247	-	-	-	-	-	5.37	-	0.0053	0.0206
		25th percentile	0.00134	0.00141	0.00127	0.00142	-	-	-	-	-	3.07	-	0.0034	0.0078
		75th percentile	0.00152	0.00164	0.00169	0.00183	-	-	-	-	-	5.30	-	0.0051	0.0124
		95th percentile	0.00168	0.00169	0.00226	0.00234	-	-	-	-	-	5.35	-	0.0053	0.0190
		Standard deviation	0.00018	0.00017	0.00057	0.00054	-	-	-	-	-	1.36	-	0.0012	0.0063
		Standard error	0.00009	0.00009	0.00029	0.00027	-	-	-	-	-	0.68	-	0.0006	0.0031
		Sample size	4	4	4	4	4	4	4	4	4	4	4	4	4
		Number of non-detects	0	0	0	0	4	4	4	4	4	0	4	0	0
		Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	0.0	0.0

Notes:

141	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
11	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.25 2025 Kemess Water Quality Data – (WR-S4).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.25	2.5	0.1	0.6	0.6	1.5	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309	-	0.1788
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.596	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WR-S4	2025-01-12 08:15:00	VA25A0822-015	4.71	886	1.5	0.36	8.45	7.68	223	-	1.25	-	259	253	198	0.00210	0.0079
WR-S4	2025-02-10 14:00:00	VA25A3370-027	2.61	928	1.5	0.75	8.39	7.73	230	0.125	1.25	0.134	284	280	212	0.00260	0.0191
WR-S4	2025-03-12 11:25:00	VA25A5732-014	2.84	915	10.3	1.68	8.38	7.88	228	-	1.25	-	288	298	246	0.00302	0.1370
WR-S4	2025-04-06 09:00:00	VA25A7989-007	3.16	861	13.3	1.85	8.31	7.66	220	-	1.25	-	291	276	237	0.00280	0.1580
WR-S4	2025-05-06 14:00:00	VA25B0742-007	3.36	736	17.6	4.03	8.20	7.51	178	-	1.25	-	180	182	178	0.00440	0.1960
WR-S4	2025-05-21 10:05:00	VA25B2045-012	4.05	805	1.5	0.47	8.26	7.56	206	-	1.25	-	207	210	198	0.00360	0.0244
WR-S4	2025-05-21 10:10:00	VA25B2045-018	4.08	805	1.5	0.36	8.26	7.56	200	-	1.25	-	208	213	200	0.00340	0.0156
WR-S4	2025-06-02 16:20:00	VA25B3466-008	4.13	737	1.5	0.53	8.38	7.69	200	-	1.25	-	188	209	188	0.00370	0.0156
WR-S4	2025-06-16 16:25:00	VA25B4662-015	3.94	762	1.5	0.34	8.49	7.83	204	0.125	1.25	0.175	200	208	195	0.00380	0.0107
WR-S4	2025-07-01 13:20:00	VA25B6420-008	4.92	726	1.5	0.43	8.56	7.89	199	0.125	1.25	0.150	192	199	159	0.00410	0.0216
WR-S4	2025-07-15 14:45:00	VA25B7598-004	3.86	743	1.5	0.52	8.31	7.87	213	-	1.25	-	203	199	164	0.00360	0.0191
WR-S4	2025-08-13 09:40:00	VA25C0473-014	4.01	792	1.5	0.30	8.28	7.66	220	0.125	1.25	0.175	243	243	204	0.00280	0.0230
WR-S4	2025-08-16 16:50:00	VA25C0840-007	3.90	800	4.3	0.66	8.43	7.66	220	-	1.25	-	242	241	203	0.00300	0.0225
WR-S4	2025-09-09 14:40:00	VA25C3871-007	3.77	872	1.5	0.60	8.57	7.94	234	-	1.25	-	273	257	214	0.00330	0.0123
WR-S4	2025-09-14 11:45:00	VA25C4188-007	4.09	840	4.0	1.16	8.42	7.82	225	-	1.25	-	254	252	218	0.00500	0.0152
WR-S4	2025-10-14 09:35:00	VA25C7527-015	3.53	862	1.5	0.38	8.45	8.18	226	-	1.25	-	269	256	215	0.00330	0.0170
WR-S4	2025-11-18 11:10:00	VA25D1477-010	3.06	832	1.5	0.21	8.23	7.93	221	0.125	1.25	0.185	245	268	218	0.00450	0.0140
WR-S4	2025-12-16 14:30:00	VA25D4009-014	2.99	1010	8.2	2.62	8.37	7.05	254	0.125	1.25	0.140	266	276	217	0.00200	0.0095

Notes:

593	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
37	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.25 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.074000	-	0.005000	-	-	-	-	-	-	-	1.2000	0.0003260	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.250000	-	-	-	-	-	-	-	-	-	-	0.0010780	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WR-S4	2025-01-12 08:15:00	VA25A0822-015	0.000140	0.000160	0.000550	0.000610	0.0788	0.0794	0.00001	0.00001	0.000025	0.000025	0.0180	0.0160	0.0000025	0.0000025	89.1
WR-S4	2025-02-10 14:00:00	VA25A3370-027	0.000150	0.000150	0.000530	0.000550	0.0889	0.0860	0.00001	0.00001	0.000025	0.000025	0.0180	0.0180	0.0000050	0.0000059	99.1
WR-S4	2025-03-12 11:25:00	VA25A5732-014	0.000144	0.000163	0.000481	0.000635	0.0800	0.0817	0.00001	0.00001	0.000025	0.000025	0.0158	0.0188	0.0000025	0.0000050	99.8
WR-S4	2025-04-06 09:00:00	VA25A7989-007	0.000140	0.000180	0.000480	0.000860	0.0764	0.0761	0.00001	0.00001	0.000025	0.000025	0.0200	0.0190	0.0000064	0.0000050	102.0
WR-S4	2025-05-06 14:00:00	VA25B0742-007	0.000160	0.000190	0.001150	0.001370	0.0509	0.0544	0.00001	0.00001	0.000025	0.000025	0.0240	0.0260	0.0000067	0.0000148	63.2
WR-S4	2025-05-21 10:05:00	VA25B2045-012	0.000200	0.000200	0.000740	0.000800	0.0656	0.0623	0.00001	0.00001	0.000025	0.000025	0.0210	0.0240	0.0000025	0.0000025	72.1
WR-S4	2025-05-21 10:10:00	VA25B2045-018	0.000200	0.000200	0.000740	0.000840	0.0640	0.0634	0.00001	0.00001	0.000025	0.000025	0.0220	0.0240	0.0000050	0.0000025	72.5
WR-S4	2025-06-02 16:20:00	VA25B3466-008	0.000180	0.000200	0.000640	0.000720	0.0610	0.0596	0.00001	0.00001	0.000025	0.000025	0.0200	0.0260	0.0000050	0.0000050	64.2
WR-S4	2025-06-16 16:25:00	VA25B4662-015	0.000200	0.000230	0.000620	0.000700	0.0643	0.0653	0.00001	0.00001	0.000025	0.000025	0.0210	0.0220	0.0000089	0.0000068	69.7
WR-S4	2025-07-01 13:20:00	VA25B6420-008	0.000180	0.000190	0.000550	0.000610	0.0595	0.0605	0.00001	0.00001	0.000025	0.000025	0.0220	0.0220	0.0000025	0.0000050	66.5
WR-S4	2025-07-15 14:45:00	VA25B7598-004	0.000200	0.000210	0.000570	0.000650	0.0619	0.0627	0.00001	0.00001	0.000025	0.000025	0.0220	0.0220	0.0000059	0.0000050	71.0
WR-S4	2025-08-13 09:40:00	VA25C0473-014	0.000170	0.000180	0.000560	0.000600	0.0778	0.0779	0.00001	0.00001	0.000025	0.000025	0.0200	0.0220	0.0000025	0.0000050	84.2
WR-S4	2025-08-16 16:50:00	VA25C0840-007	0.000160	0.000170	0.000590	0.000570	0.0797	0.0737	0.00001	0.00001	0.000025	0.000025	0.0200	0.0220	0.0000050	0.0000050	83.8
WR-S4	2025-09-09 14:40:00	VA25C3871-007	0.000170	0.000180	0.000520	0.000590	0.0792	0.0791	0.00001	0.00001	0.000025	0.000025	0.0220	0.0220	0.0000050	0.0000050	94.7
WR-S4	2025-09-14 11:45:00	VA25C4188-007	0.000130	0.000140	0.000470	0.000520	0.0800	0.0818	0.00001	0.00001	0.000025	0.000025	0.0200	0.0200	0.0000025	0.0000025	87.5
WR-S4	2025-10-14 09:35:00	VA25C7527-015	0.000180	0.000160	0.000520	0.000500	0.0716	0.0732	0.00001	0.00001	0.000025	0.000025	0.0190	0.0190	0.0000025	0.0000025	93.3
WR-S4	2025-11-18 11:10:00	VA25D1477-010	0.000160	0.000150	0.000480	0.000560	0.0724	0.0716	0.00001	0.00001	0.000025	0.000025	0.0170	0.0170	0.0000025	0.0000050	83.8
WR-S4	2025-12-16 14:30:00	VA25D4009-014	0.000150	0.000160	0.000480	0.000550	0.0677	0.0768	0.00001	0.00001	0.000025	0.000025	0.0170	0.0190	0.0000050	0.0000025	92.7

Notes:

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37	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
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Table A2.25 (Cont'd.)

			Metals														
			Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
	Detection Limit		0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	0.00065	-	0.000464	-	-	-	-	0.0042390	-	-	-	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	-	-	-	-	0.002832	-	0.3500	1.000	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WR-S4	2025-01-12 08:15:00	VA25A0822-015	86.9	0.00025	0.00025	0.00005	0.00005	0.000990	0.00102	0.0120	0.027	0.000025	0.0000250	0.00480	0.00440	8.87	8.67
WR-S4	2025-02-10 14:00:00	VA25A3370-027	96.0	0.00025	0.00025	0.00005	0.00005	0.000970	0.00115	0.0160	0.042	0.000025	0.0000250	0.00500	0.00460	8.81	9.77
WR-S4	2025-03-12 11:25:00	VA25A5732-014	104.0	0.00025	0.00025	0.00005	0.00013	0.000828	0.00151	0.0122	0.173	0.000025	0.0000654	0.00448	0.00509	9.31	9.43
WR-S4	2025-04-06 09:00:00	VA25A7989-007	96.7	0.00025	0.00025	0.00005	0.00014	0.001030	0.00165	0.0140	0.202	0.000025	0.0000690	0.00500	0.00480	8.91	8.43
WR-S4	2025-05-06 14:00:00	VA25B0742-007	64.3	0.00025	0.00025	0.00005	0.00020	0.001420	0.00283	0.0190	0.297	0.000025	0.0000770	0.00590	0.00630	5.37	5.26
WR-S4	2025-05-21 10:05:00	VA25B2045-012	73.2	0.00025	0.00025	0.00005	0.00005	0.001460	0.00164	0.0050	0.031	0.000025	0.0000250	0.00640	0.00710	6.53	6.49
WR-S4	2025-05-21 10:10:00	VA25B2045-018	74.1	0.00025	0.00025	0.00005	0.00005	0.001430	0.00156	0.0050	0.021	0.000025	0.0000250	0.00680	0.00710	6.67	6.71
WR-S4	2025-06-02 16:20:00	VA25B3466-008	73.3	0.00025	0.00025	0.00005	0.00005	0.001440	0.00154	0.0050	0.026	0.000025	0.0000250	0.00540	0.00630	6.68	6.37
WR-S4	2025-06-16 16:25:00	VA25B4662-015	72.8	0.00025	0.00025	0.00005	0.00005	0.001500	0.00156	0.0050	0.019	0.000025	0.0000250	0.00530	0.00540	6.41	6.30
WR-S4	2025-07-01 13:20:00	VA25B6420-008	69.2	0.00025	0.00025	0.00005	0.00005	0.001510	0.00167	0.0120	0.033	0.000025	0.0000250	0.00500	0.00480	6.29	6.42
WR-S4	2025-07-15 14:45:00	VA25B7598-004	69.1	0.00025	0.00025	0.00005	0.00005	0.001500	0.00164	0.0050	0.027	0.000025	0.0000250	0.00550	0.00520	6.25	6.42
WR-S4	2025-08-13 09:40:00	VA25C0473-014	84.3	0.00025	0.00025	0.00005	0.00005	0.001260	0.00140	0.0180	0.051	0.000025	0.0000250	0.00520	0.00570	7.98	7.88
WR-S4	2025-08-16 16:50:00	VA25C0840-007	83.5	0.00025	0.00025	0.00005	0.00005	0.001270	0.00140	0.0190	0.056	0.000025	0.0000250	0.00530	0.00560	8.06	7.92
WR-S4	2025-09-09 14:40:00	VA25C3871-007	89.8	0.00025	0.00025	0.00005	0.00005	0.001240	0.00124	0.0210	0.036	0.000025	0.0000250	0.00580	0.00580	8.83	7.98
WR-S4	2025-09-14 11:45:00	VA25C4188-007	86.6	0.00025	0.00025	0.00005	0.00005	0.001150	0.00132	0.0270	0.054	0.000025	0.0000250	0.00490	0.00500	8.63	8.73
WR-S4	2025-10-14 09:35:00	VA25C7527-015	89.2	0.00025	0.00025	0.00005	0.00005	0.001060	0.00135	0.0140	0.039	0.000025	0.0000250	0.00560	0.00530	8.75	8.19
WR-S4	2025-11-18 11:10:00	VA25D1477-010	93.2	0.00025	0.00025	0.00005	0.00005	0.001090	0.00121	0.0120	0.034	0.000025	0.0000250	0.00500	0.00540	8.60	8.47
WR-S4	2025-12-16 14:30:00	VA25D4009-014	94.8	0.00025	0.00025	0.00005	0.00005	0.000930	0.00108	0.0050	0.021	0.000025	0.0000250	0.00520	0.00570	8.31	9.42

Notes:

593	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
37	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.25 (Cont'd.)

			Metals														
			Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
	Detection Limit		0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
	Units		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
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	1.39700	-	0.0012500	-	7.60000	0.00330	-	-	-	-	-	-	0.0020	-
	BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum		-	2.52360	-	-	-	46.00000	0.05810	-	-	-	-	-	-	-	-
	BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Livestock (Ruminant)		-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Ruminant)		-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
	Total Molybdenum Guideline - Wildlife (Non-Ruminant)		-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WR-S4	2025-01-12 08:15:00	VA25A0822-015	0.01540	0.01740	0.0000025	0.0000025	0.01020	0.01040	0.00025	0.00025	0.025	0.025	0.745	0.754	0.0696	0.0634	4.42
WR-S4	2025-02-10 14:00:00	VA25A3370-027	0.01980	0.02250	0.0000025	0.0000025	0.01130	0.01140	0.00025	0.00025	0.025	0.025	0.791	0.759	0.0720	0.0717	4.48
WR-S4	2025-03-12 11:25:00	VA25A5732-014	0.00983	0.03190	0.0000025	0.0000025	0.01060	0.01100	0.00025	0.00025	0.025	0.025	0.726	0.742	0.0724	0.0685	4.31
WR-S4	2025-04-06 09:00:00	VA25A7989-007	0.01480	0.03810	0.0000025	0.0000025	0.00996	0.01050	0.00025	0.00025	0.025	0.025	0.803	0.752	0.0615	0.0657	4.17
WR-S4	2025-05-06 14:00:00	VA25B0742-007	0.03870	0.08060	0.0000025	0.0000025	0.01520	0.01640	0.00025	0.00025	0.025	0.025	0.820	0.760	0.0719	0.0724	4.28
WR-S4	2025-05-21 10:05:00	VA25B2045-012	0.00480	0.00765	0.0000025	0.0000025	0.01240	0.01200	0.00025	0.00025	0.025	0.025	0.710	0.670	0.0795	0.0787	3.93
WR-S4	2025-05-21 10:10:00	VA25B2045-018	0.00454	0.00554	0.0000025	0.0000025	0.01240	0.01220	0.00025	0.00025	0.025	0.025	0.712	0.687	0.0837	0.0809	4.04
WR-S4	2025-06-02 16:20:00	VA25B3466-008	0.00427	0.00651	0.0000025	0.0000025	0.01150	0.01280	0.00025	0.00025	0.025	0.025	0.680	0.692	0.0731	0.0755	4.00
WR-S4	2025-06-16 16:25:00	VA25B4662-015	0.00638	0.00722	0.0000025	0.0000025	0.01120	0.01130	0.00025	0.00025	0.025	0.025	0.614	0.612	0.0636	0.0694	3.84
WR-S4	2025-07-01 13:20:00	VA25B6420-008	0.00744	0.00952	0.0000025	0.0000025	0.01000	0.01000	0.00025	0.00025	0.025	0.025	0.593	0.544	0.0567	0.0554	3.68
WR-S4	2025-07-15 14:45:00	VA25B7598-004	0.00915	0.01140	0.0000025	0.0000025	0.00981	0.00993	0.00025	0.00025	0.025	0.025	0.539	0.549	0.0567	0.0570	3.89
WR-S4	2025-08-13 09:40:00	VA25C0473-014	0.01860	0.02270	0.0000025	0.0000025	0.00961	0.00978	0.00025	0.00025	0.025	0.025	0.613	0.668	0.0684	0.0662	4.22
WR-S4	2025-08-16 16:50:00	VA25C0840-007	0.01960	0.02480	0.0000025	0.0000025	0.00898	0.00934	0.00025	0.00025	0.025	0.025	0.678	0.604	0.0612	0.0642	4.25
WR-S4	2025-09-09 14:40:00	VA25C3871-007	0.02310	0.02480	0.0000025	0.0000025	0.00960	0.00998	0.00025	0.00025	0.025	0.025	0.694	0.673	0.0625	0.0636	4.13
WR-S4	2025-09-14 11:45:00	VA25C4188-007	0.02550	0.02860	0.0000025	0.0000025	0.00811	0.00844	0.00025	0.00025	0.025	0.025	0.840	0.835	0.0588	0.0567	4.60
WR-S4	2025-10-14 09:35:00	VA25C7527-015	0.01220	0.01600	0.0000025	0.0000025	0.00965	0.00949	0.00025	0.00025	0.025	0.025	0.698	0.679	0.0780	0.0711	4.27
WR-S4	2025-11-18 11:10:00	VA25D1477-010	0.01000	0.01260	0.0000025	0.0000025	0.01040	0.01060	0.00025	0.00025	0.025	0.025	0.671	0.677	0.0657	0.0711	4.50
WR-S4	2025-12-16 14:30:00	VA25D4009-014	0.01000	0.01210	0.0000025	0.0000025	0.01110	0.01130	0.00025	0.00025	0.025	0.025	0.687	0.695	0.0716	0.0772	4.52

Notes:

593	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
37	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.25 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	DateTime	COC Code													
WR-S4	2025-01-12 08:15:00	VA25A0822-015	4.58	0.000005	0.000005	97.3	92.2	0.901	0.897	79.1	76.2	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WR-S4	2025-02-10 14:00:00	VA25A3370-027	4.56	0.000005	0.000005	97.1	95.0	0.986	1.010	78.7	86.0	0.000005	0.000005	0.00005	0.00005	0.00015	0.00090
WR-S4	2025-03-12 11:25:00	VA25A5732-014	4.72	0.000005	0.000005	96.8	95.4	0.992	0.987	84.1	86.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.00225
WR-S4	2025-04-06 09:00:00	VA25A7989-007	4.38	0.000005	0.000005	95.3	89.1	0.909	0.905	75.4	80.1	0.000005	0.000005	0.00005	0.00005	0.00015	0.00435
WR-S4	2025-05-06 14:00:00	VA25B0742-007	4.46	0.000005	0.000005	88.9	94.6	0.618	0.638	61.5	62.5	0.000005	0.000005	0.00005	0.00005	0.00015	0.00461
WR-S4	2025-05-21 10:05:00	VA25B2045-012	4.17	0.000005	0.000005	91.4	99.9	0.793	0.795	66.9	74.8	0.000005	0.000005	0.00005	0.00005	0.00015	0.00090
WR-S4	2025-05-21 10:10:00	VA25B2045-018	4.24	0.000005	0.000005	92.8	103.0	0.780	0.803	67.4	77.5	0.000005	0.000005	0.00005	0.00005	0.00015	0.00040
WR-S4	2025-06-02 16:20:00	VA25B3466-008	3.83	0.000005	0.000005	88.7	90.4	0.680	0.757	66.5	69.8	0.000005	0.000005	0.00005	0.00005	0.00015	0.00035
WR-S4	2025-06-16 16:25:00	VA25B4662-015	3.97	0.000005	0.000005	84.7	86.0	0.751	0.755	61.4	67.1	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015
WR-S4	2025-07-01 13:20:00	VA25B6420-008	4.07	0.000005	0.000005	83.0	81.4	0.726	0.710	55.3	59.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.00059
WR-S4	2025-07-15 14:45:00	VA25B7598-004	4.05	0.000005	0.000005	79.2	80.6	0.728	0.731	57.2	58.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.00049
WR-S4	2025-08-13 09:40:00	VA25C0473-014	4.45	0.000005	0.000005	86.8	92.9	0.894	0.868	70.0	75.7	0.000005	0.000005	0.00005	0.00005	0.00015	0.00064
WR-S4	2025-08-16 16:50:00	VA25C0840-007	4.17	0.000005	0.000005	90.5	89.4	0.863	0.872	70.5	77.4	0.000005	0.000005	0.00005	0.00005	0.00015	0.00070
WR-S4	2025-09-09 14:40:00	VA25C3871-007	4.36	0.000005	0.000005	95.6	92.9	0.905	0.946	78.6	80.8	0.000005	0.000005	0.00005	0.00005	0.00015	0.00034
WR-S4	2025-09-14 11:45:00	VA25C4188-007	4.62	0.000005	0.000005	89.6	89.4	0.830	0.836	81.2	83.2	0.000005	0.000005	0.00005	0.00005	0.00015	0.00043
WR-S4	2025-10-14 09:35:00	VA25C7527-015	4.48	0.000005	0.000005	94.9	94.4	0.928	0.920	77.4	77.6	0.000005	0.000005	0.00005	0.00005	0.00015	0.00051
WR-S4	2025-11-18 11:10:00	VA25D1477-010	4.43	0.000005	0.000005	90.7	92.5	0.865	0.878	73.7	74.5	0.000005	0.000005	0.00005	0.00005	0.00015	0.00054
WR-S4	2025-12-16 14:30:00	VA25D4009-014	4.94	0.000005	0.000005	85.3	104.0	0.907	0.956	75.7	91.3	0.000005	0.000005	0.00005	0.00005	0.00015	0.00015

Notes:

593	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
37	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.25 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.025	0.005	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0219	-	-	-	0.7680	3.00	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.01650	-	-	0.0856	-	-	-	3.9900	32.80	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.00750	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	**DateTime**	**COC Code**													
WR-S4	2025-01-12 08:15:00	VA25A0822-015	0.00142	0.00144	0.000660	0.00076	0.0005	0.0015	0.0001	0.00010	0.0163	4.69	0.0025	0.0005	0.0040
WR-S4	2025-02-10 14:00:00	VA25A3370-027	0.00148	0.00150	0.000680	0.00080	0.0005	0.0015	0.0001	0.00010	0.0025	5.51	0.0025	0.0005	0.0048
WR-S4	2025-03-12 11:25:00	VA25A5732-014	0.00151	0.00160	0.000677	0.00112	0.0005	0.0015	0.0001	0.00010	0.0067	6.44	0.0025	0.0024	0.0045
WR-S4	2025-04-06 09:00:00	VA25A7989-007	0.00157	0.00156	0.000660	0.00120	0.0005	0.0015	0.0001	0.00010	0.0065	6.21	0.0025	0.0005	0.0045
WR-S4	2025-05-06 14:00:00	VA25B0742-007	0.00108	0.00119	0.001380	0.00225	0.0005	0.0015	0.0001	0.00010	0.0099	5.58	0.0065	0.0030	0.0080
WR-S4	2025-05-21 10:05:00	VA25B2045-012	0.00130	0.00141	0.001290	0.00146	0.0005	0.0015	0.0001	0.00031	0.0155	4.15	0.0025	0.0014	0.0047
WR-S4	2025-05-21 10:10:00	VA25B2045-018	0.00137	0.00141	0.001320	0.00145	0.0005	0.0015	0.0001	0.00010	0.0177	4.18	0.0025	0.0014	0.0055
WR-S4	2025-06-02 16:20:00	VA25B3466-008	0.00121	0.00128	0.001100	0.00130	0.0005	0.0015	0.0001	0.00010	0.0075	3.56	0.0025	0.0005	0.0039
WR-S4	2025-06-16 16:25:00	VA25B4662-015	0.00113	0.00111	0.001030	0.00137	0.0005	0.0015	0.0001	0.00010	0.0025	3.49	0.0025	0.0005	0.0010
WR-S4	2025-07-01 13:20:00	VA25B6420-008	0.00104	0.00106	0.000890	0.00104	0.0005	0.0015	0.0001	0.00010	0.0025	2.85	0.0025	0.0005	0.0030
WR-S4	2025-07-15 14:45:00	VA25B7598-004	0.00115	0.00113	0.000950	0.00108	0.0005	0.0015	0.0001	0.00010	0.0025	3.03	0.0025	0.0005	0.0026
WR-S4	2025-08-13 09:40:00	VA25C0473-014	0.00117	0.00131	0.000760	0.00101	0.0005	0.0015	0.0001	0.00010	0.0074	3.81	0.0025	0.0005	0.0010
WR-S4	2025-08-16 16:50:00	VA25C0840-007	0.00123	0.00138	0.000790	0.00090	0.0005	0.0015	0.0001	0.00010	0.0092	3.63	0.0025	0.0005	0.0034
WR-S4	2025-09-09 14:40:00	VA25C3871-007	0.00134	0.00136	0.000780	0.00090	0.0005	0.0015	0.0001	0.00010	0.0025	4.08	0.0025	0.0005	0.0031
WR-S4	2025-09-14 11:45:00	VA25C4188-007	0.00120	0.00121	0.000680	0.00086	0.0005	0.0015	0.0001	0.00010	0.0025	3.74	0.0025	0.0005	0.0030
WR-S4	2025-10-14 09:35:00	VA25C7527-015	0.00136	0.00140	0.000720	0.00081	0.0005	0.0015	0.0001	0.00010	0.0087	4.57	0.0025	0.0005	0.0031
WR-S4	2025-11-18 11:10:00	VA25D1477-010	0.00135	0.00147	0.000760	0.00089	0.0005	0.0015	0.0001	0.00010	0.0025	4.67	0.0025	0.0005	0.0030
WR-S4	2025-12-16 14:30:00	VA25D4009-014	0.00146	0.00141	0.000800	0.00084	0.0005	0.0015	0.0001	0.00010	0.0083	4.80	0.0025	0.0028	0.0053

Notes:

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37	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
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0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
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1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.25 (Cont'd.)

	Carbon Content	Conventional Variables					Major Ions							Metals	
	Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.25	2.5	0.1	0.6	0.6	1.5	0.001	0.003
Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309	-	0.1788
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.596	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	2.61	726	-	0.21	8.20	7.05	178	-	-	0.134	180	182	159	0.00200	0.0079
Mean	3.72	828	-	0.96	8.37	7.73	217	-	-	0.160	238	240	204	0.00339	0.0410
Median	3.88	818	-	0.52	8.38	7.71	220	-	-	0.162	244	248	204	0.00335	0.0180
Maximum	4.92	1010	-	4.03	8.57	8.18	254	-	-	0.185	291	298	246	0.00500	0.1960
25th percentile	3.21	770	-	0.36	8.29	7.66	204	-	-	0.143	204	209	196	0.00285	0.0143
75th percentile	4.07	870	-	1.06	8.45	7.88	226	-	-	0.175	268	265	216	0.00378	0.0229
95th percentile	4.74	940	-	2.83	8.56	7.98	237	-	-	0.182	288	283	238	0.00457	0.1637
Standard deviation	0.62	77	-	1.00	0.11	0.24	17	-	-	0.021	37	34	22	0.00080	0.0575
Standard error	0.15	18	-	0.24	0.03	0.06	4	-	-	0.009	9	8	5	0.00019	0.0136
Sample size	18	18	18	18	18	18	18	6	18	6	18	18	18	18	18
Number of non-detects	0	0	12	0	0	0	0	6	18	0	0	0	0	0	0
Percentage of non-detects	0.0	0.0	66.7	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

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2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.25 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.074000	-	0.005000	-	-	-	-	-	-	-	1.2000	0.0003260	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.250000	-	-	-	-	-	-	-	-	-	-	0.0010780	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.000130	0.000140	0.000470	0.000500	0.0509	0.0544	-	-	-	-	0.0158	0.0160	-	-	63.2
Mean	0.000167	0.000179	0.000593	0.000680	0.0711	0.0714	-	-	-	-	0.0199	0.0210	-	-	82.7
Median	0.000165	0.000180	0.000550	0.000610	0.0720	0.0734	-	-	-	-	0.0200	0.0220	-	-	84.0
Maximum	0.000200	0.000230	0.001150	0.001370	0.0889	0.0860	-	-	-	-	0.0240	0.0260	-	-	102.0
25th percentile	0.000150	0.000160	0.000491	0.000562	0.0641	0.0629	-	-	-	-	0.0182	0.0190	-	-	71.3
75th percentile	0.000180	0.000198	0.000612	0.000715	0.0791	0.0788	-	-	-	-	0.0218	0.0220	-	-	93.1
95th percentile	0.000200	0.000213	0.000801	0.000936	0.0813	0.0824	-	-	-	-	0.0223	0.0260	-	-	100.1
Standard deviation	0.000023	0.000024	0.000161	0.000202	0.0098	0.0093	-	-	-	-	0.0021	0.0029	-	-	13.0
Standard error	0.000005	0.000006	0.000038	0.000048	0.0023	0.0022	-	-	-	-	0.0005	0.0007	-	-	3.1
Sample size	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Number of non-detects	0	0	0	0	0	0	18	18	18	18	0	0	14	15	0
Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	77.8	83.3	0.0

Notes:

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Table A2.25 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00065	-	0.000464	-	-	-	-	0.0042390	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.002832	-	0.3500	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	64.3	-	-	-	-	0.000828	0.00102	0.0050	0.019	-	-	0.00448	0.00440	5.37	5.26
Mean	83.4	-	-	-	-	0.001227	0.00149	0.0126	0.066	-	-	0.00537	0.00553	7.74	7.71
Median	85.4	-	-	-	-	0.001250	0.00146	0.0121	0.035	-	-	0.00525	0.00540	8.19	7.95
Maximum	104.0	-	-	-	-	0.001510	0.00283	0.0270	0.297	-	-	0.00680	0.00710	9.31	9.77
25th percentile	73.2	-	-	-	-	0.001038	0.00126	0.0050	0.027	-	-	0.00500	0.00502	6.56	6.44
75th percentile	92.4	-	-	-	-	0.001438	0.00162	0.0175	0.053	-	-	0.00558	0.00577	8.80	8.62
95th percentile	97.8	-	-	-	-	0.001502	0.00184	0.0219	0.216	-	-	0.00646	0.00710	8.97	9.48
Standard deviation	11.5	-	-	-	-	0.000226	0.00039	0.0067	0.077	-	-	0.00057	0.00077	1.23	1.31
Standard error	2.7	-	-	-	-	0.000053	0.00009	0.0016	0.018	-	-	0.00014	0.00018	0.29	0.31
Sample size	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Number of non-detects	0	18	18	18	15	0	0	6	0	18	15	0	0	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	83.3	0.0	0.0	33.3	0.0	100.0	83.3	0.0	0.0	0.0	0.0

Notes:

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Table A2.25 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	1.39700	-	0.0012500	-	7.60000	0.00330	-	-	-	-	-	-	0.0020	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	2.52360	-	-	-	46.00000	0.05810	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Minimum	0.00427	0.00554	-	-	0.00811	0.00844	-	-	-	-	0.539	0.544	0.0567	0.0554	3.68
Mean	0.01412	0.02111	-	-	0.01067	0.01094	-	-	-	-	0.701	0.686	0.0682	0.0683	4.20
Median	0.01110	0.01670	-	-	0.01030	0.01055	-	-	-	-	0.696	0.683	0.0690	0.0690	4.23
Maximum	0.03870	0.08060	-	-	0.01520	0.01640	-	-	-	-	0.840	0.835	0.0837	0.0809	4.60
25th percentile	0.00787	0.00999	-	-	0.00969	0.00994	-	-	-	-	0.673	0.668	0.0618	0.0638	4.01
75th percentile	0.01935	0.02480	-	-	0.01128	0.01138	-	-	-	-	0.740	0.750	0.0723	0.0722	4.39
95th percentile	0.02748	0.04447	-	-	0.01282	0.01334	-	-	-	-	0.823	0.771	0.0801	0.0790	4.53
Standard deviation	0.00894	0.01763	-	-	0.00159	0.00175	-	-	-	-	0.080	0.076	0.0079	0.0075	0.26
Standard error	0.00211	0.00416	-	-	0.00037	0.00041	-	-	-	-	0.019	0.018	0.0019	0.0018	0.06
Sample size	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Number of non-detects	0	0	18	18	0	0	18	18	18	18	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

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Table A2.25 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.83	-	-	79.2	80.6	0.618	0.638	55.3	58.4	-	-	-	-	-	0.00015
Mean	4.36	-	-	90.5	92.4	0.836	0.848	71.1	75.5	-	-	-	-	-	0.00102
Median	4.40	-	-	90.6	92.7	0.864	0.870	72.1	76.8	-	-	-	-	-	0.00053
Maximum	4.94	-	-	97.3	104.0	0.992	1.010	84.1	91.3	-	-	-	-	-	0.00461
25th percentile	4.17	-	-	87.3	89.4	0.758	0.766	66.6	71.0	-	-	-	-	-	0.00036
75th percentile	4.54	-	-	95.2	94.9	0.907	0.916	78.3	80.6	-	-	-	-	-	0.00085
95th percentile	4.75	-	-	97.1	103.2	0.987	0.990	81.6	87.1	-	-	-	-	-	0.00439
Standard deviation	0.28	-	-	5.3	6.2	0.105	0.102	8.5	9.2	-	-	-	-	-	0.00134
Standard error	0.07	-	-	1.2	1.5	0.025	0.024	2.0	2.2	-	-	-	-	-	0.00032
Sample size	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Number of non-detects	0	18	18	0	0	0	0	0	0	18	18	18	18	18	4
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	22.2

Notes:

593	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
37	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.25 (Cont'd.)

	Metals								Nutrients				
	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.025	0.005	0.001	0.002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0219	-	-	-	0.7680	3.00	0.0200	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.01650	-	-	0.0856	-	-	-	3.9900	32.80	0.0600	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.00750	-	0.06000	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	0.00104	0.00106	0.000660	0.00076	-	-	-	-	0.0025	2.85	-	-	0.0010
Mean	0.00130	0.00135	0.000885	0.00111	-	-	-	-	0.0073	4.39	-	-	0.0038
Median	0.00132	0.00139	0.000785	0.00102	-	-	-	-	0.0071	4.16	-	-	0.0036
Maximum	0.00157	0.00160	0.001380	0.00225	-	-	-	-	0.0177	6.44	-	-	0.0080
25th percentile	0.00118	0.00123	0.000690	0.00087	-	-	-	-	0.0025	3.66	-	-	0.0030
75th percentile	0.00141	0.00143	0.001010	0.00127	-	-	-	-	0.0091	4.77	-	-	0.0047
95th percentile	0.00152	0.00157	0.001329	0.00158	-	-	-	-	0.0165	6.24	-	-	0.0059
Standard deviation	0.00016	0.00015	0.000241	0.00036	-	-	-	-	0.0050	1.02	-	-	0.0016
Standard error	0.00004	0.00004	0.000057	0.00009	-	-	-	-	0.0012	0.24	-	-	0.0004
Sample size	18	18	18	18	18	18	18	18	18	18	18	18	18
Number of non-detects	0	0	0	0	18	18	18	17	7	0	17	13	2
Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	100.0	100.0	94.4	38.9	0.0	94.4	72.2	11.1

Notes:

593	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
37	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
2	value(s) highlighted in this colour failed the Data QA/QC Protocol and were excluded from further analysis
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.26 2025 Kemess Water Quality Data – (WRC-5).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309.0	-	0.1768
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.277	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WRC-5	2025-09-15 08:35:00	VA25C4426-005	-	221	1.5	0.58	8.12	7.4	90.2	0.025	0.25	0.086	86.8	84.2	25.3	0.0065	0.0296
		Minimum	-	221	-	0.58	8.12	7.4	90.2	-	-	0.086	86.8	84.2	25.3	0.0065	0.0296
		Mean	-	221	-	0.58	8.12	7.4	90.2	-	-	0.086	86.8	84.2	25.3	0.0065	0.0296
		Median	-	221	-	0.58	8.12	7.4	90.2	-	-	0.086	86.8	84.2	25.3	0.0065	0.0296
		Maximum	-	221	-	0.58	8.12	7.4	90.2	-	-	0.086	86.8	84.2	25.3	0.0065	0.0296
		25th percentile	-	221	-	0.58	8.12	7.4	90.2	-	-	0.086	86.8	84.2	25.3	0.0065	0.0296
		75th percentile	-	221	-	0.58	8.12	7.4	90.2	-	-	0.086	86.8	84.2	25.3	0.0065	0.0296
		95th percentile	-	221	-	0.58	8.12	7.4	90.2	-	-	0.086	86.8	84.2	25.3	0.0065	0.0296
		Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Sample size	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	-	0	1	0	0	0	0	1	1	0	0	0	0	0	0
		Percentage of non-detects	-	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.26 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00002	0.00002	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0001910	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0005080	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WRC-5 2025-09-15 08:35:00 VA25C4426-005	0.00005	0.00005	0.00018	0.00022	0.0306	0.0305	0.00001	0.00001	0.000025	0.000025	0.005	0.005	0.0000025	0.0000025	30
Minimum	-	-	0.00018	0.00022	0.0306	0.0305	-	-	-	-	-	-	-	-	30
Mean	-	-	0.00018	0.00022	0.0306	0.0305	-	-	-	-	-	-	-	-	30
Median	-	-	0.00018	0.00022	0.0306	0.0305	-	-	-	-	-	-	-	-	30
Maximum	-	-	0.00018	0.00022	0.0306	0.0305	-	-	-	-	-	-	-	-	30
25th percentile	-	-	0.00018	0.00022	0.0306	0.0305	-	-	-	-	-	-	-	-	30
75th percentile	-	-	0.00018	0.00022	0.0306	0.0305	-	-	-	-	-	-	-	-	30
95th percentile	-	-	0.00018	0.00022	0.0306	0.0305	-	-	-	-	-	-	-	-	30
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	1	1	0	0	0	0	1	1	1	1	1	1	1	1	0
Percentage of non-detects	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.26 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total
Detection Limit	0.05	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001	0.1	0.1
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	0.00048	-	0.00083	-	-	-	-	0.003250	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	0.00494	-	0.350	1.000	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00250	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WRC-5 2025-09-15 08:35:00 VA25C4426-005	29.2	0.00025	0.00025	0.00005	0.00005	0.00111	0.00131	0.022	0.063	0.000025	0.000025	0.0005	0.0005	2.89	2.74
Minimum	29.2	-	-	-	-	0.00111	0.00131	0.022	0.063	-	-	-	-	2.89	2.74
Mean	29.2	-	-	-	-	0.00111	0.00131	0.022	0.063	-	-	-	-	2.89	2.74
Median	29.2	-	-	-	-	0.00111	0.00131	0.022	0.063	-	-	-	-	2.89	2.74
Maximum	29.2	-	-	-	-	0.00111	0.00131	0.022	0.063	-	-	-	-	2.89	2.74
25th percentile	29.2	-	-	-	-	0.00111	0.00131	0.022	0.063	-	-	-	-	2.89	2.74
75th percentile	29.2	-	-	-	-	0.00111	0.00131	0.022	0.063	-	-	-	-	2.89	2.74
95th percentile	29.2	-	-	-	-	0.00111	0.00131	0.022	0.063	-	-	-	-	2.89	2.74
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0
Percentage of non-detects	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.26 (Cont'd.)

	Metals														
	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved
Detection Limit	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.1	0.1	0.00005	0.00005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.98692	-	0.0012500	-	7.60000	0.00170	-	-	-	-	-	-	0.00200	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	1.49654	-	-	-	46.00000	0.02750	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	0.01600	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	0.03400	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	0.28400	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WRC-5 2025-09-15 08:35:00 VA25C4426-005	0.00104	0.00534	0.0000025	0.0000025	0.00162	0.00179	0.00025	0.00025	0.025	0.025	0.281	0.262	0.0029	0.00288	3.84
Minimum	0.00104	0.00534	-	-	0.00162	0.00179	-	-	-	-	0.281	0.262	0.0029	0.00288	3.84
Mean	0.00104	0.00534	-	-	0.00162	0.00179	-	-	-	-	0.281	0.262	0.0029	0.00288	3.84
Median	0.00104	0.00534	-	-	0.00162	0.00179	-	-	-	-	0.281	0.262	0.0029	0.00288	3.84
Maximum	0.00104	0.00534	-	-	0.00162	0.00179	-	-	-	-	0.281	0.262	0.0029	0.00288	3.84
25th percentile	0.00104	0.00534	-	-	0.00162	0.00179	-	-	-	-	0.281	0.262	0.0029	0.00288	3.84
75th percentile	0.00104	0.00534	-	-	0.00162	0.00179	-	-	-	-	0.281	0.262	0.0029	0.00288	3.84
95th percentile	0.00104	0.00534	-	-	0.00162	0.00179	-	-	-	-	0.281	0.262	0.0029	0.00288	3.84
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0
Percentage of non-detects	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.26 (Cont'd.)

	Metals														
	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total
Detection Limit	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.00001	0.00001	0.0001	0.0001	0.0003	0.0003
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.000120	-	-	-	-	-	-	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.250	-	-	-	-	0.000030	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WRC-5 2025-09-15 08:35:00 VA25C4426-005	4.02	0.000005	0.000005	13.4	12.7	0.145	0.152	8.54	8.57	0.000005	0.000005	0.00005	0.00005	0.00015	0.0007
Minimum	4.02	-	-	13.4	12.7	0.145	0.152	8.54	8.57	-	-	-	-	-	0.0007
Mean	4.02	-	-	13.4	12.7	0.145	0.152	8.54	8.57	-	-	-	-	-	0.0007
Median	4.02	-	-	13.4	12.7	0.145	0.152	8.54	8.57	-	-	-	-	-	0.0007
Maximum	4.02	-	-	13.4	12.7	0.145	0.152	8.54	8.57	-	-	-	-	-	0.0007
25th percentile	4.02	-	-	13.4	12.7	0.145	0.152	8.54	8.57	-	-	-	-	-	0.0007
75th percentile	4.02	-	-	13.4	12.7	0.145	0.152	8.54	8.57	-	-	-	-	-	0.0007
95th percentile	4.02	-	-	13.4	12.7	0.145	0.152	8.54	8.57	-	-	-	-	-	0.0007
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	1	1	0	0	0	0	0	0	1	1	1	1	1	0
Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.26 (Cont'd.)

			Metals								Nutrients				
			Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved	Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.00001	0.00001	0.0005	0.0005	0.001	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.0107	-	-	-	1.9100	3.000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.016500	-	-	0.0436	-	-	-	11.5000	32.800	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.007500	-	0.06000	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code													
WRC-5	2025-09-15 08:35:00	VA25C4426-005	0.00005	0.000052	0.00025	0.00025	0.0005	0.0015	0.0001	0.0001	0.0025	0.104	0.0005	0.0005	0.0045
		Minimum	0.00005	0.000052	-	-	-	-	-	-	-	0.104	-	-	0.0045
		Mean	0.00005	0.000052	-	-	-	-	-	-	-	0.104	-	-	0.0045
		Median	0.00005	0.000052	-	-	-	-	-	-	-	0.104	-	-	0.0045
		Maximum	0.00005	0.000052	-	-	-	-	-	-	-	0.104	-	-	0.0045
		25th percentile	0.00005	0.000052	-	-	-	-	-	-	-	0.104	-	-	0.0045
		75th percentile	0.00005	0.000052	-	-	-	-	-	-	-	0.104	-	-	0.0045
		95th percentile	0.00005	0.000052	-	-	-	-	-	-	-	0.104	-	-	0.0045
		Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-
		Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	0	0	1	1	1	1	1	1	1	0	1	1	0
		Percentage of non-detects	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	0.0

Notes:

43	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.27 2025 Kemess Water Quality Data – (WRC-BP).

			Carbon Content	Conventional Variables					Major Ions								Metals	
			Dissolved Organic Carbon	Conductivity	Total Suspended Solids	Turbidity	pH	pH, In-Situ	Alkalinity-Total as $CaCO_3$	Bromide	Chloride	Fluoride (F)	Hardness ($CaCO_3$) Dissolved	Hardness $CaCO_3$	Sulphate SO_4	Aluminum (Al)-Dissolved	Aluminum (Al)-Total
		Detection Limit	0.5	2	3	0.1	0.1	0.1	1	0.05	0.5	0.02	0.6	0.6	0.3	0.001	0.003
		Units	mg/L	uS/cm	mg/L	NTU	pH unit	pH unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	9.00	9.00	-	-	150.00	-	-	-	309.00	-	0.23
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	600.00	1.394	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WRC-BP	2025-09-17 15:48:00	VA25C5004-001	-	299	98	50.2	8.11	7.6	164	0.025	0.25	0.109	116	127	8.85	0.0104	2.15
		Minimum	-	299	98	50.2	8.11	7.6	164	-	-	0.109	116	127	8.85	0.0104	2.15
		Mean	-	299	98	50.2	8.11	7.6	164	-	-	0.109	116	127	8.85	0.0104	2.15
		Median	-	299	98	50.2	8.11	7.6	164	-	-	0.109	116	127	8.85	0.0104	2.15
		Maximum	-	299	98	50.2	8.11	7.6	164	-	-	0.109	116	127	8.85	0.0104	2.15
		25th percentile	-	299	98	50.2	8.11	7.6	164	-	-	0.109	116	127	8.85	0.0104	2.15
		75th percentile	-	299	98	50.2	8.11	7.6	164	-	-	0.109	116	127	8.85	0.0104	2.15
		95th percentile	-	299	98	50.2	8.11	7.6	164	-	-	0.109	116	127	8.85	0.0104	2.15
		Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Sample size	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	-	0	0	0	0	0	0	1	1	0	0	0	0	0	0
		Percentage of non-detects	-	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

30	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.27 (Cont'd.)

	Metals														
	Antimony (Sb)-Dissolved	Antimony (Sb)-Total	Arsenic (As)-Dissolved	Arsenic (As)-Total	Barium (Ba)-Dissolved	Barium (Ba)-Total	Beryllium (Be)-Dissolved	Beryllium (Be)-Total	Bismuth (Bi)-Dissolved	Bismuth (Bi)-Total	Boron (B)-Dissolved	Boron (B)-Total	Cadmium (Cd)-Dissolved	Cadmium (Cd)-Total	Calcium (Ca)-Dissolved
Detection Limit	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00005	0.00005	0.01	0.01	0.000005	0.000005	0.05
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.07400	-	0.00500	-	-	-	-	-	-	-	1.200	0.0002360	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	0.25000	-	-	-	-	-	-	-	-	-	-	0.0006850	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	1.0000	-	0.00013	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WRC-BP 2025-09-17 15:48:00 VA25C5004-001	0.00012	0.00013	0.00076	0.00152	0.0626	0.0949	0.00005	0.00005	0.000025	0.000025	0.005	0.005	0.0000025	0.0000375	39.8
Minimum	0.00012	0.00013	0.00076	0.00152	0.0626	0.0949	-	-	-	-	-	-	-	0.0000375	39.8
Mean	0.00012	0.00013	0.00076	0.00152	0.0626	0.0949	-	-	-	-	-	-	-	0.0000375	39.8
Median	0.00012	0.00013	0.00076	0.00152	0.0626	0.0949	-	-	-	-	-	-	-	0.0000375	39.8
Maximum	0.00012	0.00013	0.00076	0.00152	0.0626	0.0949	-	-	-	-	-	-	-	0.0000375	39.8
25th percentile	0.00012	0.00013	0.00076	0.00152	0.0626	0.0949	-	-	-	-	-	-	-	0.0000375	39.8
75th percentile	0.00012	0.00013	0.00076	0.00152	0.0626	0.0949	-	-	-	-	-	-	-	0.0000375	39.8
95th percentile	0.00012	0.00013	0.00076	0.00152	0.0626	0.0949	-	-	-	-	-	-	-	0.0000375	39.8
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0
Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0

Notes:

30	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.27 (Cont'd.)

	Metals														
	Calcium (Ca)-Total	Cesium (Cs)-Dissolved	Cesium (Cs)-Total	Chromium (Cr)-Dissolved	Chromium (Cr)-Total	Cobalt (Co)-Dissolved	Cobalt (Co)-Total	Copper (Cu)-Dissolved	Copper (Cu)-Total	Iron (Fe)-Dissolved	Iron (Fe)-Total	Lead (Pb)-Dissolved	Lead (Pb)-Total	Lithium (Li)-Dissolved	Lithium (Li)-Total
Detection Limit	0.05	0.00001	0.00001	0.0005	0.0005	0.0001	0.0001	0.0002	0.0005	0.01	0.01	0.00005	0.00005	0.001	0.001
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	0.00054	-	0.00136	-	-	-	-	0.003458	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	0.00802	-	0.350	1.00	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	0.00250	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WRC-BP 2025-09-17 15:48:00 VA25C5004-001	43.5	0.000005	0.000203	0.00025	0.00192	0.00005	0.00073	0.00047	0.00668	0.218	2.96	0.000025	0.000774	0.0005	0.0018
Minimum	43.5	-	0.000203	-	0.00192	-	0.00073	0.00047	0.00668	0.218	2.96	-	0.000774	-	0.0018
Mean	43.5	-	0.000203	-	0.00192	-	0.00073	0.00047	0.00668	0.218	2.96	-	0.000774	-	0.0018
Median	43.5	-	0.000203	-	0.00192	-	0.00073	0.00047	0.00668	0.218	2.96	-	0.000774	-	0.0018
Maximum	43.5	-	0.000203	-	0.00192	-	0.00073	0.00047	0.00668	0.218	2.96	-	0.000774	-	0.0018
25th percentile	43.5	-	0.000203	-	0.00192	-	0.00073	0.00047	0.00668	0.218	2.96	-	0.000774	-	0.0018
75th percentile	43.5	-	0.000203	-	0.00192	-	0.00073	0.00047	0.00668	0.218	2.96	-	0.000774	-	0.0018
95th percentile	43.5	-	0.000203	-	0.00192	-	0.00073	0.00047	0.00668	0.218	2.96	-	0.000774	-	0.0018
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	1	0	1	0	1	0	0	0	0	0	1	0	1	0
Percentage of non-detects	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0

Notes:

30	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.27 (Cont'd.)

	Metals														
	Magnesium (Mg)-Dissolved	Magnesium (Mg)-Total	Manganese (Mn)-Dissolved	Manganese (Mn)-Total	Mercury (Hg)-Dissolved	Mercury (Hg)-Total	Molybdenum (Mo)-Dissolved	Molybdenum (Mo)-Total	Nickel (Ni)-Dissolved	Nickel (Ni)-Total	Phosphorus (P)-Dissolved	Phosphorus (P)-Total	Potassium (K)-Dissolved	Potassium (K)-Total	Rubidium (Rb)-Dissolved
Detection Limit	0.005	0.005	0.0001	0.0001	0.000005	0.000005	0.00005	0.00005	0.0005	0.0005	0.05	0.05	0.05	0.05	0.0002
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	1.115	-	0.0012500	-	7.60000	0.00250	-	-	-	-	-	-
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	1.818	-	-	-	46.00000	0.03890	-	-	-	-	-	-
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	0.01600	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	0.03400	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	0.28400	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WRC-BP 2025-09-17 15:48:00 VA25C5004-001	4.08	4.53	0.299	0.332	0.0000025	0.0000074	0.00195	0.00217	0.00025	0.00181	0.025	0.128	0.438	0.602	0.00032
Minimum	4.08	4.53	0.299	0.332	-	0.0000074	0.00195	0.00217	-	0.00181	-	0.128	0.438	0.602	0.00032
Mean	4.08	4.53	0.299	0.332	-	0.0000074	0.00195	0.00217	-	0.00181	-	0.128	0.438	0.602	0.00032
Median	4.08	4.53	0.299	0.332	-	0.0000074	0.00195	0.00217	-	0.00181	-	0.128	0.438	0.602	0.00032
Maximum	4.08	4.53	0.299	0.332	-	0.0000074	0.00195	0.00217	-	0.00181	-	0.128	0.438	0.602	0.00032
25th percentile	4.08	4.53	0.299	0.332	-	0.0000074	0.00195	0.00217	-	0.00181	-	0.128	0.438	0.602	0.00032
75th percentile	4.08	4.53	0.299	0.332	-	0.0000074	0.00195	0.00217	-	0.00181	-	0.128	0.438	0.602	0.00032
95th percentile	4.08	4.53	0.299	0.332	-	0.0000074	0.00195	0.00217	-	0.00181	-	0.128	0.438	0.602	0.00032
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0
Percentage of non-detects	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0

Notes:

30	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.27 (Cont'd.)

			Metals														
			Rubidium (Rb)-Total	Selenium (Se)-Dissolved	Selenium (Se)-Total	Silicon (Si)-Dissolved	Silicon (Si)-Total	Silver (Ag)-Dissolved	Silver (Ag)-Total	Sodium (Na)-Dissolved	Sodium (Na)-Total	Strontium (Sr)-Dissolved	Strontium (Sr)-Total	Sulphur (S)-Dissolved	Sulphur (S)-Total	Tellurium (Te)-Dissolved	Tellurium (Te)-Total
		Detection Limit	0.0002	0.00005	0.00005	0.05	0.1	0.00001	0.00001	0.05	0.05	0.0002	0.0002	0.5	0.5	0.0002	0.0002
		Units	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
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	0.00200	-	-	-	0.00012	-	-	-	-	-	-	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	1.250	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location	DateTime	COC Code															
WRC-BP	2025-09-17 15:48:00	VA25C5004-001	0.00154	0.00198	0.00371	4.1	8.77	0.000005	0.00003	18.1	19.2	0.279	0.285	3.22	3.74	0.0001	0.0001
		Minimum	0.00154	0.00198	0.00371	4.1	8.77	-	0.00003	18.1	19.2	0.279	0.285	3.22	3.74	-	-
		Mean	0.00154	0.00198	0.00371	4.1	8.77	-	0.00003	18.1	19.2	0.279	0.285	3.22	3.74	-	-
		Median	0.00154	0.00198	0.00371	4.1	8.77	-	0.00003	18.1	19.2	0.279	0.285	3.22	3.74	-	-
		Maximum	0.00154	0.00198	0.00371	4.1	8.77	-	0.00003	18.1	19.2	0.279	0.285	3.22	3.74	-	-
		25th percentile	0.00154	0.00198	0.00371	4.1	8.77	-	0.00003	18.1	19.2	0.279	0.285	3.22	3.74	-	-
		75th percentile	0.00154	0.00198	0.00371	4.1	8.77	-	0.00003	18.1	19.2	0.279	0.285	3.22	3.74	-	-
		95th percentile	0.00154	0.00198	0.00371	4.1	8.77	-	0.00003	18.1	19.2	0.279	0.285	3.22	3.74	-	-
		Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Number of non-detects	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
		Percentage of non-detects	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0

Notes:

30	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.27 (Cont'd.)

	Metals														
	Thallium (Tl)-Dissolved	Thallium (Tl)-Total	Thorium (Th)-Dissolved	Thorium (Th)-Total	Tin (Sn)-Dissolved	Tin (Sn)-Total	Titanium (Ti)-Dissolved	Titanium (Ti)-Total	Tungsten (W)-Dissolved	Tungsten (W)-Total	Uranium (U)-Dissolved	Uranium (U)-Total	Vanadium (V)-Dissolved	Vanadium (V)-Total	Zinc (Zn)-Dissolved
Detection Limit	0.00001	0.00001	0.0001	0.0001	0.0001	0.0001	0.0003	0.0003	0.0001	0.0001	0.00001	0.00001	0.0005	0.0005	0.001
Units	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
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0103
BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	-	-	-	-	-	-	-	-	0.016500	-	-	0.0555
BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	0.000030	-	-	-	-	-	-	-	-	-	0.007500	-	0.06000	-
Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location **DateTime** **COC Code**															
WRC-BP 2025-09-17 15:48:00 VA25C5004-001	0.000005	0.000012	0.00005	0.00005	0.00005	0.00005	0.00052	0.0291	0.00005	0.00005	0.000168	0.000209	0.00054	0.00424	0.0005
Minimum	-	0.000012	-	-	-	-	0.00052	0.0291	-	-	0.000168	0.000209	0.00054	0.00424	-
Mean	-	0.000012	-	-	-	-	0.00052	0.0291	-	-	0.000168	0.000209	0.00054	0.00424	-
Median	-	0.000012	-	-	-	-	0.00052	0.0291	-	-	0.000168	0.000209	0.00054	0.00424	-
Maximum	-	0.000012	-	-	-	-	0.00052	0.0291	-	-	0.000168	0.000209	0.00054	0.00424	-
25th percentile	-	0.000012	-	-	-	-	0.00052	0.0291	-	-	0.000168	0.000209	0.00054	0.00424	-
75th percentile	-	0.000012	-	-	-	-	0.00052	0.0291	-	-	0.000168	0.000209	0.00054	0.00424	-
95th percentile	-	0.000012	-	-	-	-	0.00052	0.0291	-	-	0.000168	0.000209	0.00054	0.00424	-
Standard deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample size	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of non-detects	1	0	1	1	1	1	0	0	1	1	0	0	0	0	1
Percentage of non-detects	100.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0

Notes:

30	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

Table A2.27 (Cont'd.)

			Metals			Nutrients				
			Zinc (Zn)-Total	Zirconium (Zr)-Dissolved	Zirconium (Zr)-Total	Ammonia, Total (as N)	Nitrate Nitrogen N	Nitrite Nitrogen N	Orthophosphate (P)	Phosphorus, Total Dissolved
		Detection Limit	0.003	0.0002	0.0002	0.005	0.005	0.001	0.001	0.002
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	1.150	3.0000	0.0200	-	-
		BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum	-	-	-	5.960	32.8000	0.0600	-	-
		BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Livestock (Ruminant)	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Ruminant)	-	-	-	-	-	-	-	-
		Total Molybdenum Guideline - Wildlife (Non-Ruminant)	-	-	-	-	-	-	-	-
Location	DateTime	COC Code								
WRC-BP	2025-09-17 15:48:00	VA25C5004-001	0.0062	0.0001	0.0001	0.152	0.0055	0.0064	0.0076	0.12
		Minimum	0.0062	-	-	0.152	0.0055	0.0064	0.0076	0.12
		Mean	0.0062	-	-	0.152	0.0055	0.0064	0.0076	0.12
		Median	0.0062	-	-	0.152	0.0055	0.0064	0.0076	0.12
		Maximum	0.0062	-	-	0.152	0.0055	0.0064	0.0076	0.12
		25th percentile	0.0062	-	-	0.152	0.0055	0.0064	0.0076	0.12
		75th percentile	0.0062	-	-	0.152	0.0055	0.0064	0.0076	0.12
		95th percentile	0.0062	-	-	0.152	0.0055	0.0064	0.0076	0.12
		Standard deviation	-	-	-	-	-	-	-	-
		Standard error	-	-	-	-	-	-	-	-
		Sample size	1	1	1	1	1	1	1	1
		Number of non-detects	0	1	1	0	0	0	0	0
		Percentage of non-detects	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0

Notes:

30	underlined value(s) in blue were equal or below the detection limit at the time of measurement. Only the minimum detection limit is shown. Values equal or below detection limit are shown as 0.5 x the detection limit
2	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
1	value(s) in this text colour exceeded BC Approved Water Quality Guideline - Freshwater Aquatic Life - Short Term Maximum
0	value(s) in this text colour exceeded BC Working Water Quality Guideline - Freshwater Aquatic Life - Long Term Average
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Livestock (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Ruminant)
0	value(s) in this text colour exceeded Total Molybdenum Guideline - Wildlife (Non-Ruminant)
1	General Note: Guideline values are calculated per data point, in many cases accounting for cofactors specific to that day of sampling. The guideline shown at the top, in the summary for each analyte, is the LOWEST guideline calculated for that analyte across the whole period. Individual guideline exceedances may differ from this value.

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25C4426**		
Client	:	**Hatfield Consultants LLP**	Laboratory	: ALS Environmental - Vancouver
Contact	:	Benjamin Beall	Account Manager	: Sean Zhang
Address	:	200 - 850 Harbourside Drive North Vancouver British Columbia Canada V7P 0A3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	604 926 3261	E-mail	: sean.zhang@alsglobal.com
Project	:	KEM12954	Telephone	: +1 604 253 4188
PO	:	4500002781	Date Samples Received	: 17-Sep-2025 11:10
C-O-C number	:	23-1161836	Date Analysis Commenced	: 17-Sep-2025
Sampler	:	----	Issue Date	: 25-Sep-2025 14:39
Site	:	AMI/Kemess Mine		
Quote number	:	VA23-CEGO100-002		
No. of samples received	:	5		
No. of samples analysed	:	5		

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Iris Lee	Lab Assistant	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Lindsay Gung	Department Manager - Inorganics	Metals, Burnaby, British Columbia
Lindsay Gung	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
Monica Ko	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia

General Comments

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

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

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

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

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

Unit	*Description*
-	no units
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units
µS/cm	microsiemens per centimetre

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

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Sample Comments

Sample	*Client Id*	*Comment*
VA25C4426-001	ATWL-1b	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C4426-002	ATWL-1a	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C4426-003	LREF-1	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C4426-004	ACB-3	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C4426-005	WRC-5	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ATWL-1b ----	ATWL-1a ----	LREF-1 ----	ACB-3 ----	WRC-5 ----
					Client sampling date / time	15-Sep-2025 09:05	15-Sep-2025 08:15	15-Sep-2025 10:06	15-Sep-2025 10:50	15-Sep-2025 08:35
						VA25C4426-001	VA25C4426-002	VA25C4426-003	VA25C4426-004	VA25C4426-005
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L		77.1	88.3	46.1	43.0	90.2
Conductivity	----	E100/VA	2.0	µS/cm		188	220	98.3	137	221
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		77.1	84.8	45.0	61.2	86.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		74.2	83.8	43.3	61.7	84.2
pH	----	E108/VA	0.10	pH units		7.67	7.94	7.64	7.83	8.12
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		4.5	<3.0	<3.0	4.8	<3.0
Turbidity	----	E121/VA	0.10	NTU		1.84	0.80	0.30	1.44	0.58
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.0107	0.0051	0.0088	<0.0050	<0.0050
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L		0.94	<0.50	<0.50	<0.50	<0.50
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		0.069	0.082	0.042	0.037	0.086
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		0.0053	0.0909	0.0055	0.0183	0.104
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		<0.0010	<0.0010	0.0037	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.0153	0.0073	0.0086	0.0050	0.0045
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		20.4	24.8	4.79	25.3	25.3
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L		0.0448	0.0380	0.0110	0.345	0.0296
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		0.00034	0.00026	0.00097	0.00051	0.00022

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ATWL-1b ----	ATWL-1a ----	LREF-1 ----	ACB-3 ----	WRC-5 ----
					Client sampling date / time	15-Sep-2025 09:05	15-Sep-2025 08:15	15-Sep-2025 10:06	15-Sep-2025 10:50	15-Sep-2025 08:35
						VA25C4426-001	VA25C4426-002	VA25C4426-003	VA25C4426-004	VA25C4426-005
						Result	Result	Result	Result	Result
Total Metals										
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.0250	0.0314	0.00578	0.0380	0.0305
Beryllium, total	7440-41-7	E420/VA	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/VA	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.000171	<0.0000050
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		25.3	28.8	15.5	22.4	29.2
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		0.00010	<0.00010	<0.00010	0.00063	<0.00010
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		0.00074	0.00133	<0.00050	0.00198	0.00131
Iron, total	7439-89-6	E420/VA	0.010	mg/L		0.611	0.180	0.011	0.386	0.063
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000080	<0.000050
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, total	7439-95-4	E420/VA	0.100	mg/L		2.69	2.90	1.12	1.40	2.74
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.0270	0.0177	0.00081	0.0181	0.00534
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L		0.00175	0.00180	0.000595	0.00151	0.00179
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00062	<0.00050
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/VA	0.100	mg/L		0.483	0.315	0.330	0.173	0.262
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		0.00108	0.00270	0.000177	0.000095	0.00288
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		4.11	4.06	4.89	3.50	4.02

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ATWL-1b ----	ATWL-1a ----	LREF-1 ----	ACB-3 ----	WRC-5 ----
					Client sampling date / time	15-Sep-2025 09:05	15-Sep-2025 08:15	15-Sep-2025 10:06	15-Sep-2025 10:50	15-Sep-2025 08:35
						VA25C4426-001	VA25C4426-002	VA25C4426-003	VA25C4426-004	VA25C4426-005
						Result	Result	Result	Result	Result
Total Metals										
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		8.92	12.5	1.46	1.40	12.7
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.119	0.148	0.0357	0.0743	0.152
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		6.72	8.46	1.32	8.15	8.57
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		0.00142	0.00109	<0.00030	0.00097	0.00070
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.000044	0.000052	0.000089	0.000103	0.000052
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		<0.00050	<0.00050	0.00091	<0.00050	<0.00050
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		<0.0030	<0.0030	<0.0030	0.0137	<0.0030
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L		0.0041	0.0065	0.0036	0.0463	0.0065
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L		0.00022	0.00022	0.00097	0.00032	0.00018
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L		0.0241	0.0319	0.00560	0.0392	0.0306
Beryllium, dissolved	7440-41-7	E421/VA	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.000154	<0.0000050
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L		26.3	29.2	16.2	22.2	30.0

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ATWL-1b ----	ATWL-1a ----	LREF-1 ----	ACB-3 ----	WRC-5 ----
					Client sampling date / time	15-Sep-2025 09:05	15-Sep-2025 08:15	15-Sep-2025 10:06	15-Sep-2025 10:50	15-Sep-2025 08:35
						VA25C4426-001	VA25C4426-002	VA25C4426-003	VA25C4426-004	VA25C4426-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00058	<0.00010
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L		0.00058	0.00105	<0.00020	0.00128	0.00111
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L		0.248	0.092	<0.010	0.099	0.022
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/VA	0.100	mg/L		2.78	2.90	1.11	1.41	2.89
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		0.0195	0.0158	0.00087	0.0153	0.00104
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L		0.00170	0.00171	0.000593	0.00142	0.00162
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00059	<0.00050
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/VA	0.100	mg/L		0.522	0.329	0.349	0.188	0.281
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L		0.00106	0.00279	0.000192	0.000077	0.00290
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L		4.02	3.91	4.74	3.28	3.84
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L		9.22	12.4	1.52	1.44	13.4
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L		0.117	0.138	0.0345	0.0731	0.145
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L		6.92	8.05	1.52	8.26	8.54
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	ATWL-1b ----	ATWL-1a ----	LREF-1 ----	ACB-3 ----	WRC-5 ----
					Client sampling date / time	15-Sep-2025 09:05	15-Sep-2025 08:15	15-Sep-2025 10:06	15-Sep-2025 10:50	15-Sep-2025 08:35
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*		**VA25C4426-001**	**VA25C4426-002**	**VA25C4426-003**	**VA25C4426-004**	**VA25C4426-005**
						Result	Result	Result	Result	Result
Dissolved Metals										
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L		0.000039	0.000049	0.000082	0.000054	0.000050
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L		<0.00050	<0.00050	0.00094	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0085	<0.0010
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved mercury filtration location	----	EP509/VA	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/VA	-	-		Field	Field	Field	Field	Field

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

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25C4426**	Page	: 1 of 18
Client	: **Hatfield Consultants LLP**	Laboratory	: ALS Environmental - Vancouver
Contact	: Benjamin Beall	Account Manager	: Sean Zhang
Address	: 200 - 850 Harbourside Drive North Vancouver BC Canada V7P 0A3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 604 926 3261	Telephone	: +1 604 253 4188
Project	: KEM12954	Date Samples Received	: 17-Sep-2025 11:10
PO	: 4500002781	Issue Date	: 25-Sep-2025 14:39
C-O-C number	: 23-1161836		
Sampler	: ----		
Site	: AMI/Kemess Mine		
Quote number	: VA23-CEGO100-002		
No. of samples received	: 5		
No. of samples analysed	: 5		

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

Key

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

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

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

Outliers : Frequency of Quality Control Samples

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

Analysis Holding Time Compliance

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

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

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

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

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) ACB-3	E298	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	23-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) ATWL-1a	E298	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	23-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) ATWL-1b	E298	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	23-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) LREF-1	E298	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	23-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WRC-5	E298	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	23-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE ACB-3	E235.Br-L	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE ATWL-1a	E235.Br-L	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE										
ATWL-1b	E235.Br-L	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE										
LREF-1	E235.Br-L	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE										
WRC-5	E235.Br-L	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
ACB-3	E235.Cl	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
ATWL-1a	E235.Cl	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
ATWL-1b	E235.Cl	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
LREF-1	E235.Cl	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
WRC-5	E235.Cl	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
ACB-3	E378-U	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
ATWL-1a	E378-U	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
ATWL-1b	E378-U	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
LREF-1	E378-U	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
WRC-5	E378-U	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE										
ACB-3	E235.F	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE										
ATWL-1a	E235.F	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE										
ATWL-1b	E235.F	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE										
LREF-1	E235.F	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE										
WRC-5	E235.F	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE ACB-3	E235.NO3-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE ATWL-1a	E235.NO3-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE ATWL-1b	E235.NO3-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE LREF-1	E235.NO3-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE WRC-5	E235.NO3-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE ACB-3	E235.NO2-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE ATWL-1a	E235.NO2-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE ATWL-1b	E235.NO2-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE LREF-1	E235.NO2-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE WRC-5	E235.NO2-L	15-Sep-2025	18-Sep-2025	3 days	3 days	✓	18-Sep-2025	3 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE ACB-3	E235.SO4	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE ATWL-1a	E235.SO4	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE ATWL-1b	E235.SO4	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE LREF-1	E235.SO4	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE WRC-5	E235.SO4	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) ACB-3	E372-U	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	19-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) ATWL-1a	E372-U	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	19-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) ATWL-1b	E372-U	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	19-Sep-2025	28 days	3 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) LREF-1	E372-U	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	19-Sep-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WRC-5	E372-U	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	19-Sep-2025	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE - dissolved (lab preserved) ACB-3	E509	15-Sep-2025	24-Sep-2025	0 hrs	211 hrs	× UCP	24-Sep-2025	0 hrs	211 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE - dissolved (lab preserved) LREF-1	E509	15-Sep-2025	24-Sep-2025	0 hrs	212 hrs	× UCP	24-Sep-2025	0 hrs	212 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE - dissolved (lab preserved) ATWL-1b	E509	15-Sep-2025	24-Sep-2025	0 hrs	213 hrs	× UCP	24-Sep-2025	0 hrs	213 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE - dissolved (lab preserved) ATWL-1a	E509	15-Sep-2025	24-Sep-2025	0 hrs	214 hrs	× UCP	24-Sep-2025	0 hrs	214 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE - dissolved (lab preserved) WRC-5	E509	15-Sep-2025	24-Sep-2025	0 hrs	214 hrs	× UCP	24-Sep-2025	0 hrs	214 hrs	× UCP
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) ACB-3	E421	15-Sep-2025	23-Sep-2025	180 days	8 days	✓	24-Sep-2025	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) ATWL-1a	E421	15-Sep-2025	23-Sep-2025	180 days	8 days	✓	24-Sep-2025	180 days	8 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) ATWL-1b	E421	15-Sep-2025	23-Sep-2025	180 days	8 days	✓	24-Sep-2025	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) LREF-1	E421	15-Sep-2025	23-Sep-2025	180 days	8 days	✓	24-Sep-2025	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) WRC-5	E421	15-Sep-2025	23-Sep-2025	180 days	8 days	✓	24-Sep-2025	180 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE ACB-3	E290	15-Sep-2025	18-Sep-2025	14 days	3 days	✓	18-Sep-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE ATWL-1a	E290	15-Sep-2025	18-Sep-2025	14 days	3 days	✓	18-Sep-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE ATWL-1b	E290	15-Sep-2025	18-Sep-2025	14 days	3 days	✓	18-Sep-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE LREF-1	E290	15-Sep-2025	18-Sep-2025	14 days	3 days	✓	18-Sep-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE WRC-5	E290	15-Sep-2025	18-Sep-2025	14 days	3 days	✓	18-Sep-2025	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE ACB-3	E100	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE ATWL-1a	E100	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE ATWL-1b	E100	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE LREF-1	E100	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE WRC-5	E100	15-Sep-2025	18-Sep-2025	28 days	3 days	✓	18-Sep-2025	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE ACB-3	E108	15-Sep-2025	18-Sep-2025	0.25 hrs	70 hrs	× EHTR-FM	18-Sep-2025	0.25 hrs	70 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE LREF-1	E108	15-Sep-2025	18-Sep-2025	0.25 hrs	70 hrs	× EHTR-FM	18-Sep-2025	0.25 hrs	70 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE ATWL-1b	E108	15-Sep-2025	18-Sep-2025	0.25 hrs	71 hrs	× EHTR-FM	18-Sep-2025	0.25 hrs	71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE ATWL-1a	E108	15-Sep-2025	18-Sep-2025	0.25 hrs	72 hrs	× EHTR-FM	18-Sep-2025	0.25 hrs	72 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE WRC-5	E108	15-Sep-2025	18-Sep-2025	0.25 hrs	72 hrs	× EHTR-FM	18-Sep-2025	0.25 hrs	72 hrs	× EHTR-FM

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry										
HDPE ATWL-1a	E160	15-Sep-2025	----	----	----		21-Sep-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE ATWL-1b	E160	15-Sep-2025	----	----	----		21-Sep-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE WRC-5	E160	15-Sep-2025	----	----	----		21-Sep-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE ACB-3	E160	15-Sep-2025	----	----	----		22-Sep-2025	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE LREF-1	E160	15-Sep-2025	----	----	----		22-Sep-2025	7 days	7 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE ACB-3	E121	15-Sep-2025	----	----	----		17-Sep-2025	3 days	2 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE ATWL-1a	E121	15-Sep-2025	----	----	----		17-Sep-2025	3 days	2 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE ATWL-1b	E121	15-Sep-2025	----	----	----		17-Sep-2025	3 days	2 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE LREF-1	E121	15-Sep-2025	----	----	----		17-Sep-2025	3 days	2 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Physical Tests : Turbidity by Nephelometry										
HDPE WRC-5	E121	15-Sep-2025	----	----	----		17-Sep-2025	3 days	2 days	✓
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved) ACB-3	E508	15-Sep-2025	24-Sep-2025	0 hrs	206 hrs	✗ UCP	24-Sep-2025	0 hrs	206 hrs	✗ UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved) LREF-1	E508	15-Sep-2025	24-Sep-2025	0 hrs	207 hrs	✗ UCP	24-Sep-2025	0 hrs	207 hrs	✗ UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved) ATWL-1b	E508	15-Sep-2025	24-Sep-2025	0 hrs	208 hrs	✗ UCP	24-Sep-2025	0 hrs	208 hrs	✗ UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved) ATWL-1a	E508	15-Sep-2025	24-Sep-2025	0 hrs	209 hrs	✗ UCP	24-Sep-2025	0 hrs	209 hrs	✗ UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved) WRC-5	E508	15-Sep-2025	24-Sep-2025	0 hrs	209 hrs	✗ UCP	24-Sep-2025	0 hrs	209 hrs	✗ UCP
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) ACB-3	E420	15-Sep-2025	22-Sep-2025	180 days	7 days	✓	23-Sep-2025	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) ATWL-1a	E420	15-Sep-2025	22-Sep-2025	180 days	7 days	✓	23-Sep-2025	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) ATWL-1b	E420	15-Sep-2025	22-Sep-2025	180 days	7 days	✓	23-Sep-2025	180 days	7 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
LREF-1	E420	15-Sep-2025	22-Sep-2025	180 days	7 days	✓	23-Sep-2025	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
WRC-5	E420	15-Sep-2025	22-Sep-2025	180 days	7 days	✓	23-Sep-2025	180 days	7 days	✓

Legend & Qualifier Definitions

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

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

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

Quality Control Parameter Frequency Compliance

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

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2225933	1	20	5.0	5.0	✓
pH by Meter	E108	2225931	1	20	5.0	5.0	✓
Turbidity by Nephelometry	E121	2225424	1	17	5.8	5.0	✓
TSS by Gravimetry	E160	2232152	2	39	5.1	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	2225938	1	5	20.0	5.0	✓
Chloride in Water by IC	E235.Cl	2225937	1	13	7.6	5.0	✓
Fluoride in Water by IC	E235.F	2225936	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	2225935	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	2225934	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	2225939	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	2225932	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	2225562	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2225559	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2225941	1	15	6.6	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2226358	1	17	5.8	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2226397	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	2236816	2	40	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	2237094	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2225933	1	20	5.0	5.0	✓
pH by Meter	E108	2225931	1	20	5.0	5.0	✓
Turbidity by Nephelometry	E121	2225424	1	17	5.8	5.0	✓
TSS by Gravimetry	E160	2232152	2	39	5.1	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	2225938	1	5	20.0	5.0	✓
Chloride in Water by IC	E235.Cl	2225937	1	13	7.6	5.0	✓
Fluoride in Water by IC	E235.F	2225936	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	2225935	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	2225934	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	2225939	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	2225932	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	2225562	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2225559	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2225941	1	15	6.6	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2226358	1	17	5.8	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2226397	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	2236816	2	40	5.0	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Dissolved Mercury in Water by CVAAS	E509	2237094	1	13	7.6	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2225933	1	20	5.0	5.0	✓
Turbidity by Nephelometry	E121	2225424	1	17	5.8	5.0	✓
TSS by Gravimetry	E160	2232152	2	39	5.1	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	2225938	1	5	20.0	5.0	✓
Chloride in Water by IC	E235.Cl	2225937	1	13	7.6	5.0	✓
Fluoride in Water by IC	E235.F	2225936	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	2225935	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	2225934	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	2225939	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	2225932	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	2225562	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2225559	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2225941	1	15	6.6	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2226358	1	17	5.8	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2226397	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	2236816	2	40	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	2237094	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Bromide in Water by IC (Low Level)	E235.Br-L	2225938	1	5	20.0	5.0	✓
Chloride in Water by IC	E235.Cl	2225937	1	13	7.6	5.0	✓
Fluoride in Water by IC	E235.F	2225936	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	2225935	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	2225934	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	2225939	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	2225562	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2225559	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2225941	1	15	6.6	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2226358	0	17	0.0	5.0	×
Dissolved Metals in Water by CRC ICPMS	E421	2226397	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	2236816	2	40	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	2237094	1	13	7.6	5.0	✓

Methodology References and Summaries

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

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Vancouver	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Vancouver	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Vancouver	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Vancouver	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Bromide in Water by IC (Low Level)	E235.Br-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC	E235.Cl ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Vancouver	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Vancouver	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Vancouver	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as $CaCO_3$ equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Vancouver	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO_3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order	: **VA25C4426**	Page	: 1 of 16
Client	: Hatfield Consultants LLP	Laboratory	: ALS Environmental - Vancouver
Contact	: Benjamin Beall	Account Manager	: Sean Zhang
Address	: 200 - 299 Victoria Street Prince George BC Canada	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 604 926 3261	Telephone	: +1 604 253 4188
Project	: KEM12954	Date Samples Received	: 17-Sep-2025 11:10
PO	: 4500002781	Date Analysis Commenced	: 17-Sep-2025
C-O-C number	: 23-1161836	Issue Date	: 25-Sep-2025 14:38
Sampler	: ----		
Site	: AMI/Kemess Mine		
Quote number	: VA23-CEGO100-002		
No. of samples received	: 5		
No. of samples analysed	: 5		

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Iris Lee	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Lindsay Gung	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
Lindsay Gung	Department Manager - Inorganics	Vancouver Metals, Burnaby, British Columbia
Monica Ko	Supervisor - Inorganic	Vancouver Inorganics, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 2225424)											
KS2503745-001	Anonymous	Turbidity	----	E121	0.10	NTU	0.44	0.46	0.03	Diff <2x LOR	----
Physical Tests (QC Lot: 2225931)											
VA25C4320-004	Anonymous	pH	----	E108	0.10	pH units	7.58	7.57	0.132%	4%	----
Physical Tests (QC Lot: 2225932)											
VA25C4320-004	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	23.6	23.7	0.423%	20%	----
Physical Tests (QC Lot: 2225933)											
VA25C4320-004	Anonymous	Conductivity	----	E100	2.0	µS/cm	49.8	49.1	1.42%	10%	----
Physical Tests (QC Lot: 2232152)											
FJ2502841-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	8.3	5.5	2.8	Diff <2x LOR	----
Physical Tests (QC Lot: 2233088)											
KS2503768-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	13.8	14.6	0.8	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2225559)											
VA25C4403-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	<0.0020	<0.0020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2225562)											
VA25C4403-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2225934)											
VA25C4426-001	ATWL-1b	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0053	<0.0050	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2225935)											
VA25C4426-001	ATWL-1b	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2225936)											
VA25C4426-001	ATWL-1b	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.069	0.068	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2225937)											
VA25C4426-001	ATWL-1b	Chloride	16887-00-6	E235.Cl	0.50	mg/L	0.94	0.95	0.004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2225938)											
VA25C4426-001	ATWL-1b	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2225939)											
VA25C4426-001	ATWL-1b	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	20.4	20.4	0.0644%	20%	----
Anions and Nutrients (QC Lot: 2225941)											
VA25C4320-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0.0	Diff <2x LOR	----
Total Metals (QC Lot: 2226358)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 2226358) - continued											
VA25C4378-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0118	0.0115	0.0003	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00036	0.00036	0.0000006	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00546	0.00528	3.41%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0406	0.0403	0.710%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000133	0.0000135	0.0000002	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	40.5	40.9	1.05%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00667	0.00641	3.99%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00211	0.00208	0.00003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.120	0.116	2.70%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0074	0.0073	0.00006	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.100	mg/L	15.0	15.0	0.344%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.109	0.108	0.977%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000503	0.000477	0.000026	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00202	0.00203	0.000007	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.100	mg/L	1.11	1.09	1.62%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000196	0.000212	0.000016	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.67	4.61	1.26%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	3.88	3.86	0.571%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.234	0.231	1.12%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	26.3	26.4	0.0662%	20%	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00121	0.00119	1.36%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 2236816)											
VA25C4347-021	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 2236817)											
VA25C4426-002	ATWL-1a	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2226397)											
VA25C4426-001	ATWL-1b	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0041	0.0043	0.0002	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00022	0.00024	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0241	0.0246	2.08%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	26.3	25.8	2.02%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00058	0.00058	0.000005	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.248	0.244	1.84%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.100	mg/L	2.78	2.80	0.584%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0195	0.0196	0.777%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00170	0.00162	4.36%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.100	mg/L	0.522	0.519	0.003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00106	0.000983	7.87%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.02	3.94	1.75%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	9.22	8.99	2.54%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.117	0.112	4.36%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	6.92	6.76	2.35%	20%	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 2226397) - continued											
VA25C4426-001	ATWL-1b	Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000039	0.000044	0.000005	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2237094)											
VA25C4301-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

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

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2225424)						
Turbidity	----	E121	0.1	NTU	<0.10	----
Physical Tests (QCLot: 2225932)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2225933)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2232152)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 2233088)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 2225559)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2225562)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2225934)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2225935)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2225936)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2225937)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2225938)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2225939)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2225941)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Total Metals (QCLot: 2226358)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 2226358) - continued						
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 2236816)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 2236817)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 2226397)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2226397) - continued						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 2237094)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2237094) - continued						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

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

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2225424)									
Turbidity	----	E121	0.1	NTU	200 NTU	100.0	85.0	115	----
Physical Tests (QCLot: 2225931)									
pH	----	E108	----	pH units	7 pH units	99.6	98.0	102	----
Physical Tests (QCLot: 2225932)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2225933)									
Conductivity	----	E100	1	µS/cm	147 µS/cm	99.0	90.0	110	----
Physical Tests (QCLot: 2232152)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	108	85.0	115	----
Physical Tests (QCLot: 2233088)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	93.3	85.0	115	----
Anions and Nutrients (QCLot: 2225559)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	93.5	80.0	120	----
Anions and Nutrients (QCLot: 2225562)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.4	85.0	115	----
Anions and Nutrients (QCLot: 2225934)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2225935)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.8	90.0	110	----
Anions and Nutrients (QCLot: 2225936)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 2225937)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2225938)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	112	85.0	115	----
Anions and Nutrients (QCLot: 2225939)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2225941)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	96.0	80.0	120	----
Total Metals (QCLot: 2226358)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 2226358) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.9	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	105	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	94.8	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	96.2	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.8	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	96.9	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	96.3	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	96.9	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	95.8	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.6	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	98.0	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	94.1	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.6	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	103	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	97.8	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	88.3	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	94.6	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.2	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.3	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Total Metals (QCLot: 2236816)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	94.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 2236817)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	94.9	80.0	120	----
Dissolved Metals (QCLot: 2226397)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	107	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	110	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	105	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	115	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	92.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	106	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2226397) - continued									
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	93.8	80.0	120	----

Matrix Spike (MS) Report

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

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2225559)										
VA25C4403-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0464 mg/L	0.05 mg/L	92.9	70.0	130	----
Anions and Nutrients (QCLot: 2225562)										
VA25C4403-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0945 mg/L	0.1 mg/L	94.5	75.0	125	----
Anions and Nutrients (QCLot: 2225934)										
VA25C4426-002	ATWL-1a	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2225935)										
VA25C4426-002	ATWL-1a	Nitrite (as N)	14797-65-0	E235.NO2-L	0.492 mg/L	0.5 mg/L	98.5	75.0	125	----
Anions and Nutrients (QCLot: 2225936)										
VA25C4426-002	ATWL-1a	Fluoride	16984-48-8	E235.F	1.00 mg/L	1 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2225937)										
VA25C4426-002	ATWL-1a	Chloride	16887-00-6	E235.Cl	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2225938)										
VA25C4426-002	ATWL-1a	Bromide	24959-67-9	E235.Br-L	0.554 mg/L	0.5 mg/L	111	75.0	125	----
Anions and Nutrients (QCLot: 2225939)										
VA25C4426-002	ATWL-1a	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2225941)										
VA25C4320-003	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0288 mg/L	0.03 mg/L	95.9	70.0	130	----
Total Metals (QCLot: 2236816)										
VA25C4401-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000923 mg/L	0 mg/L	92.3	70.0	130	----
Total Metals (QCLot: 2236817)										
VA25C4426-003	LREF-1	Mercury, total	7439-97-6	E508	0.0000924 mg/L	0 mg/L	92.4	70.0	130	----
Dissolved Metals (QCLot: 2226397)										
VA25C4426-002	ATWL-1a	Aluminum, dissolved	7429-90-5	E421	0.201 mg/L	0.2 mg/L	100	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0184 mg/L	0.02 mg/L	92.2	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0400 mg/L	0.04 mg/L	100.0	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00948 mg/L	0.01 mg/L	94.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.098 mg/L	0.1 mg/L	98.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00386 mg/L	0.004 mg/L	96.6	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 2226397) - continued										
VA25C4426-002	ATWL-1a	Copper, dissolved	7440-50-8	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.98 mg/L	2 mg/L	99.1	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0960 mg/L	0.1 mg/L	96.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0193 mg/L	0.02 mg/L	96.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0396 mg/L	0.04 mg/L	98.9	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.91 mg/L	10 mg/L	99.1	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.15 mg/L	4 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.2 mg/L	20 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00387 mg/L	0.004 mg/L	96.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.389 mg/L	0.4 mg/L	97.3	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0383 mg/L	0.04 mg/L	95.7	70.0	130	----
Dissolved Metals (QCLot: 2237094)										
VA25C4301-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000951 mg/L	0 mg/L	95.1	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 23 - 1161836

Page 1 of 1

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	HATFIELD CONSULTANTS
Contact:	Ben Beall
Phone:	604-926-3261
Company address below will appear on the final report	
Street:	200-850 HARBOURSIDE DR.
City/Province:	NORTH VANCOUVER, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☑ YES ☑ NO
Company:	Aucilo Metals
Contact:	Kemess Enviro

Reports / Recipients

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

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: bbeall@hatfieldgroup.com

Email 2: cmaichle@hatfieldgroup.com

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: apmi.api@centerragold.com

Email 2:

Turnaround Time (TAT) Requested

- ☑ Routine [R] if received by 3pm M-F - no surcharges apply
- ☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
- ☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
- ☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
- ☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
- ☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Client Code / QUOTE #: VA23-CEGO-100-002 (Aucilo)

Job / Project #: KEM 12954

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (ALS use only):

ALS Contact: Sampler:

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	F/P Dissolved metals	P Total metals	F/P Total nutrients	F Dissolved nutrients	[illegible]	General Total mercury	D-SS- mercury	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	ATWL-16	15-sep-25	0905	water	5	R	R	R	R		R	R	R		
	ATWL-19	15-Sep-25	0815	water	5	R	R	R	R		R	R	R		
	LREF-1	15-Sep-25	1006	water	5	R	R	R	R		R	R	R		
	ACB-3	15 Sep-25	1050	water	5	R	R	R	R		R	R	R		
	WRC-5	15 Sep 25	0835	water	5	R	R	R	R		R	R	R		

Environmental Division
Vancouver
Work Order Reference
VA25C4426

Telephone : +1 604 253 4188

PGAE Shipping & Receiving
___ Call Out ___ Expedite
___ Priority
1 # of Coolers ___ Air
___ # of Carboys ✓ Ground

Drinking Water (DW) Samples[1] (client us... ult evaluation by selecting from drop-down below (Excel COC only)

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

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

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Cooler Custody Seals Intact: ☐ YES ☑ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
1.6	3.8			8 (8) (8 C)			

SHIPMENT RELEASE (client use)

Released by: Date: 16 Sept 2024 Time: 0730

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by: TD Date: 09/16/2025 Time: 1300

FINAL SHIPMENT RECEPTION (ALS use only)

Received by: CR Date: Sept 17 Time: 11:10

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

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

JAN 2023 FRONT

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25C5004**			
Client	:	**Hatfield Consultants LLP**	Laboratory	:	ALS Environmental - Vancouver
Contact	:	Benjamin Beall	Account Manager	:	Brent Mack
Address	:	200 - 850 Harbourside Drive North Vancouver British Columbia Canada V7P 0A3	Address	:	8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	604 926 3261	E-mail	:	Brent.Mack@ALSGlobal.com
Project	:	Kemess Mine	Telephone	:	778-370-3279
PO	:	4500002781	Date Samples Received	:	22-Sep-2025 11:55
C-O-C number	:	23-1161835	Date Analysis Commenced	:	26-Sep-2025
Sampler	:	----	Issue Date	:	01-Oct-2025 16:17
Site	:	AMI/Kemess Mine			
Quote number	:	VA23-CEGO100-004 (Hatfield c/o Centerra)			
No. of samples received	:	10			
No. of samples analysed	:	10			

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Chau Tran	Analyst	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Marianne Jensen	Analyst- General	Inorganics, Burnaby, British Columbia
Robert Nguyen	Analyst	Metals, Burnaby, British Columbia

General Comments

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

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

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

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

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

Unit	*Description*
-	no units
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units
µS/cm	microsiemens per centimetre

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

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Sample Comments

Sample	*Client Id*	*Comment*
VA25C5004-001	WRC - BF	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-002	DUP	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-003	Rinseate	Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-004	AC B-4	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-005	Field Blank	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-006	Trip Blank	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-007	ATWL -3	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-008	ACB-1	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-009	ACB-2	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
VA25C5004-010	Ref - 1	Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.
		Water sample(s) for dissolved mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low.

Qualifiers

Qualifier	Description
RRV	Reported result verified by repeat analysis.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WRC - BF ----	DUP ----	Rinseate ----	AC B-4 ----	Field Blank ----
					Client sampling date / time	17-Sep-2025 15:48	17-Sep-2025 15:48	17-Sep-2025 10:55	17-Sep-2025 10:06	17-Sep-2025 16:56
						VA25C5004-001	VA25C5004-002	VA25C5004-003	VA25C5004-004	VA25C5004-005
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L		164	159	<1.0	44.5	<1.0
Conductivity	----	E100/VA	2.0	µS/cm		299	295	<2.0	141	<2.0
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		116	117	<0.60	60.7	<0.60
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		127	130	<0.60	65.3	<0.60
pH	----	E108/VA	0.10	pH units		8.11	8.12	5.66	7.89	5.68
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		98.0	133	<3.0	<3.0	<3.0
Turbidity	----	E121/VA	0.10	NTU		50.2	67.9	0.30	0.42	<0.10
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.152	0.170	<0.0050	<0.0050	<0.0050
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		0.109	0.106	<0.020	0.038	<0.020
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		0.0055	<0.0050	<0.0050	0.0132	<0.0050
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		0.0064	0.0057	<0.0010	<0.0010	<0.0010
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		0.0076	0.0069	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.120	0.133	0.0071	0.0023	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		8.85	9.05	<0.30	25.5	<0.30
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L		2.15	1.75	0.0193	0.162	<0.0030
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		0.00013	0.00011	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		0.00152	0.00144	<0.00010	0.00032	<0.00010

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WRC - BF ----	DUP ----	Rinseate ----	AC B-4 ----	Field Blank ----
					Client sampling date / time	17-Sep-2025 15:48	17-Sep-2025 15:48	17-Sep-2025 10:55	17-Sep-2025 10:06	17-Sep-2025 16:56
						VA25C5004-001	VA25C5004-002	VA25C5004-003	VA25C5004-004	VA25C5004-005
						Result	Result	Result	Result	Result
Total Metals										
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.0949	0.0915	0.00032	0.0294	<0.00010
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/VA	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L		0.0000375	0.0000342	<0.0000050	0.000102	<0.0000050
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		43.5	44.3	0.063	23.5	<0.050
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		0.000203	0.000162	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		0.00192	0.00159	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		0.00073	0.00062	<0.00010	0.00025	<0.00010
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		0.00668	0.00597	<0.00050	0.00150	<0.00050
Iron, total	7439-89-6	E420/VA	0.010	mg/L		2.96	2.68	0.023	0.202	<0.010
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		0.000774	0.000690	<0.000050	<0.000050	<0.000050
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L		0.0018	0.0016	<0.0010	<0.0010	<0.0010
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L		4.53	4.67	0.0069	1.61	<0.0050
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.332	0.326	0.00133	0.0118	<0.00010
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L		0.0000074	0.0000066	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L		0.00217	0.00205	<0.000050	0.00178	<0.000050
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L		0.00181	0.00155	<0.00050	<0.00050	<0.00050
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		0.128	0.107	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		0.602	0.569	<0.050	0.213	<0.050
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.00154	0.00133	<0.00020	0.00020	<0.00020

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WRC - BF ----	DUP ----	Rinseate ----	AC B-4 ----	Field Blank ----
					Client sampling date / time	17-Sep-2025 15:48	17-Sep-2025 15:48	17-Sep-2025 10:55	17-Sep-2025 10:06	17-Sep-2025 16:56
						VA25C5004-001	VA25C5004-002	VA25C5004-003	VA25C5004-004	VA25C5004-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		0.00371	0.00352	<0.000050	0.000154	<0.000050
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		8.77	7.81	<0.10	3.98	<0.10
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		0.000030	0.000025	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		19.2	19.5	<0.050	1.60	<0.050
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.285	0.285	0.00027	0.0738	<0.00020
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		3.74	3.74	<0.50	9.46	<0.50
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		0.000012	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		0.0291	0.0231	0.00055	0.00031	<0.00030
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.000209	0.000212	<0.000010	0.000138	<0.000010
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.00424	0.00368	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.0062	0.0054	<0.0030	0.0069	<0.0030
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L		0.0104	0.0112	0.0014 RRV	0.0354	<0.0010
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L		0.00012	0.00012	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L		0.00076	0.00076	<0.00010	0.00024	<0.00010
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L		0.0626	0.0628	0.00010 RRV	0.0289	<0.00010

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WRC - BF ----	DUP ----	Rinseate ----	AC B-4 ----	Field Blank ----
					Client sampling date / time	17-Sep-2025 15:48	17-Sep-2025 15:48	17-Sep-2025 10:55	17-Sep-2025 10:06	17-Sep-2025 16:56
						VA25C5004-001	VA25C5004-002	VA25C5004-003	VA25C5004-004	VA25C5004-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000879	<0.0000050
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L		39.8	40.3	0.052 RRV	21.8	<0.050
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00021	<0.00010
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L		0.00047	0.00046	<0.00020	0.00106	<0.00020
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L		0.218	0.208	<0.010	0.062	<0.010
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L		4.08	4.07	<0.0050	1.53	<0.0050
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		0.299	0.291	0.00050 RRV	0.0104	<0.00010
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L		0.00195	0.00182	<0.000050	0.00168	<0.000050
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L		0.438	0.427	<0.050	0.208	<0.050
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L		0.00032	0.00036	<0.00020	<0.00020	<0.00020
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L		0.00198	0.00207	<0.000050	0.000096	<0.000050

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WRC - BF ----	DUP ----	Rinseate ----	AC B-4 ----	Field Blank ----
					Client sampling date / time	17-Sep-2025 15:48	17-Sep-2025 15:48	17-Sep-2025 10:55	17-Sep-2025 10:06	17-Sep-2025 16:56
						VA25C5004-001	VA25C5004-002	VA25C5004-003	VA25C5004-004	VA25C5004-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L		4.10	4.18	<0.050	3.48	<0.050
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L		18.1	18.1	<0.050	1.46	<0.050
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L		0.279	0.268	0.00021 RRV	0.0729	<0.00020
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L		3.22	2.88	<0.50	7.93	<0.50
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L		0.00052	0.00048	<0.00030	<0.00030	<0.00030
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L		0.000168	0.000167	<0.000010	0.000104	<0.000010
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L		0.00054	0.00053	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0048	<0.0010
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved mercury filtration location	----	EP509/VA	-	-		Field	Field	Field	Field	Field

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

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Trip Blank ----	ATWL -3 ----	ACB-1 ----	ACB-2 ----	Ref - 1 ----
					Client sampling date / time	17-Sep-2025 16:58	17-Sep-2025 13:34	17-Sep-2025 14:12	17-Sep-2025 14:53	17-Sep-2025 13:54
						VA25C5004-006	VA25C5004-007	VA25C5004-008	VA25C5004-009	VA25C5004-010
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L		<1.0	74.9	35.0	46.8	48.6
Conductivity	----	E100/VA	2.0	µS/cm		<2.0	182	95.8	115	101
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		<0.60	73.7	41.5	51.1	44.3
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		<0.60	73.9	42.0	53.3	46.8
pH	----	E108/VA	0.10	pH units		5.36	7.89	7.82	7.92	7.84
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		<3.0	6.0	5.8	<3.0	7.6
Turbidity	----	E121/VA	0.10	NTU		<0.10	1.27	1.02	0.25	1.33
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		<0.0050	0.0113	<0.0050	<0.0050	0.0066
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L		<0.50	1.28	<0.50	<0.50	<0.50
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		<0.020	0.054	0.022	0.021	0.040
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		<0.0050	0.0220	<0.0050	0.0209	<0.0050
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		<0.0020	0.0104	0.0045	0.0026	0.0098
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		<0.30	19.8	13.1	11.0	3.77
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L		<0.0030	0.0206	0.125	0.0336	0.0578
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		<0.00010	0.00029	0.00085	0.00068	0.00213

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Trip Blank ----	ATWL -3 ----	ACB-1 ----	ACB-2 ----	Ref - 1 ----
					Client sampling date / time	17-Sep-2025 16:58	17-Sep-2025 13:34	17-Sep-2025 14:12	17-Sep-2025 14:53	17-Sep-2025 13:54
						VA25C5004-006	VA25C5004-007	VA25C5004-008	VA25C5004-009	VA25C5004-010
						Result	Result	Result	Result	Result
Total Metals										
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		<0.00010	0.0298	0.0486	0.0471	0.00895
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/VA	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L		<0.0000050	0.0000062	0.0000059	0.0000055	0.0000112
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		<0.050	24.8	15.3	19.7	16.5
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		<0.000010	<0.000010	0.000059	0.000017	<0.000010
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		<0.00050	0.00072	0.00057	<0.00050	<0.00050
Iron, total	7439-89-6	E420/VA	0.010	mg/L		<0.010	0.301	0.097	0.046	0.696
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		<0.000050	<0.000050	0.000056	<0.000050	<0.000050
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L		<0.0050	2.90	0.919	0.998	1.35
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		<0.00010	0.0202	0.0271	0.0155	0.0244
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L		<0.000050	0.00122	0.00235	0.00166	0.000572
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		<0.050	0.603	0.180	0.194	0.476
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		<0.00020	0.00035	0.00032	<0.00020	0.00024

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Trip Blank ----	ATWL -3 ----	ACB-1 ----	ACB-2 ----	Ref - 1 ----
					Client sampling date / time	17-Sep-2025 16:58	17-Sep-2025 13:34	17-Sep-2025 14:12	17-Sep-2025 14:53	17-Sep-2025 13:54
						VA25C5004-006	VA25C5004-007	VA25C5004-008	VA25C5004-009	VA25C5004-010
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		<0.000050	0.000542	0.000057	0.000092	0.000169
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		<0.10	4.49	2.93	3.04	5.83
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		<0.050	8.46	1.46	1.50	1.90
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		<0.00020	0.110	0.0612	0.0698	0.0380
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		<0.50	7.68	4.63	4.39	1.45
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		<0.00030	0.00057	0.00412	0.00057	0.00081
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		<0.000010	0.000034	0.000076	0.000098	0.000120
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00174
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L		<0.0010	0.0036	0.0070	0.0050	0.0025
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L		<0.00010	0.00023	0.00060	0.00056	0.00072
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L		<0.00010	0.0299	0.0465	0.0449	0.00668

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Trip Blank ----	ATWL -3 ----	ACB-1 ----	ACB-2 ----	Ref - 1 ----
					Client sampling date / time	17-Sep-2025 16:58	17-Sep-2025 13:34	17-Sep-2025 14:12	17-Sep-2025 14:53	17-Sep-2025 13:54
						VA25C5004-006	VA25C5004-007	VA25C5004-008	VA25C5004-009	VA25C5004-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L		<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L		<0.0000050	0.0000061	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L		<0.050	24.7	15.2	18.9	15.7
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L		<0.00020	0.00061	0.00042	0.00041	<0.00020
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L		<0.010	0.137	0.028	0.019	0.042
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L		<0.0050	2.93	0.856	0.952	1.23
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		<0.00010	0.0132	0.0186	0.0112	0.00600
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L		<0.000050	0.00110	0.00231	0.00157	0.000532
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L		<0.050	0.584	0.150	0.190	0.434
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L		<0.00020	0.00032	<0.00020	<0.00020	<0.00020
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L		<0.000050	0.000462	<0.000050	0.000076	0.000050

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Trip Blank ----	ATWL -3 ----	ACB-1 ----	ACB-2 ----	Ref - 1 ----
					Client sampling date / time	17-Sep-2025 16:58	17-Sep-2025 13:34	17-Sep-2025 14:12	17-Sep-2025 14:53	17-Sep-2025 13:54
						VA25C5004-006	VA25C5004-007	VA25C5004-008	VA25C5004-009	VA25C5004-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L		<0.050	3.84	2.52	2.72	5.17
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L		<0.050	7.93	1.33	1.38	1.77
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L		<0.00020	0.107	0.0612	0.0679	0.0363
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L		<0.50	6.60	4.20	3.58	1.15
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L		<0.000010	0.000031	0.000061	0.000095	0.000049
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00061
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved mercury filtration location	----	EP509/VA	-	-		Field	Field	Field	Field	Field

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

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25C5004**	Page	: 1 of 28
Client	: **Hatfield Consultants LLP**	Laboratory	: ALS Environmental - Vancouver
Contact	: Benjamin Beall	Account Manager	: Brent Mack
Address	: 200 - 850 Harbourside Drive North Vancouver BC Canada V7P 0A3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 604 926 3261	Telephone	: 778-370-3279
Project	: Kemess Mine	Date Samples Received	: 22-Sep-2025 11:55
PO	: 4500002781	Issue Date	: 01-Oct-2025 16:17
C-O-C number	: 23-1161835		
Sampler	: ----		
Site	: AMI/Kemess Mine		
Quote number	: VA23-CEGO100-004 (Hatfield c/o Centerra)		
No. of samples received	: 10		
No. of samples analysed	: 10		

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

Key

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

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

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

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

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

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

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

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

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) AC B-4	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) ACB-1	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) ACB-2	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) ATWL -3	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) Field Blank	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) Ref - 1	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) Rinseate	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) Trip Blank	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WRC - BF	E298	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE AC B-4	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE ACB-1	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE ACB-2	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE ATWL -3	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE DUP	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE Field Blank	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE Ref - 1	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE Rinseate	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE Trip Blank	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WRC - BF	E235.Br-L	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE AC B-4	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE ACB-1	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE ACB-2	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE ATWL -3	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE DUP	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE										
Field Blank	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
Ref - 1	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
Rinseate	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
Trip Blank	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE										
WRC - BF	E235.Cl	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
ACB-1	E378-U	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	26-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
DUP	E378-U	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	26-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
Field Blank	E378-U	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	26-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE										
Trip Blank	E378-U	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	26-Sep-2025	3 days	8 days	× EHTR

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE WRC - BF	E378-U	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	26-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE AC B-4	E378-U	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE ACB-2	E378-U	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE ATWL -3	E378-U	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE Ref - 1	E378-U	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE Rinseate	E378-U	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Fluoride in Water by IC										
HDPE AC B-4	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE ACB-1	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE ACB-2	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE ATWL -3	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE DUP	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE Field Blank	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE Ref - 1	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE Rinseate	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE Trip Blank	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE WRC - BF	E235.F	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE ACB-1	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DUP	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
Field Blank	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
Trip Blank	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
WRC - BF	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
AC B-4	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	27-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
ACB-2	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
ATWL -3	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	27-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
Ref - 1	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
Rinseate	E235.NO3-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	27-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
ACB-1	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
DUP	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
Field Blank	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
Trip Blank	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
WRC - BF	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	8 days	× EHTR	27-Sep-2025	3 days	8 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
AC B-4	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	27-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
ACB-2	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
ATWL -3	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	27-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
Ref - 1	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	26-Sep-2025	3 days	9 days	× EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
Rinseate	E235.NO2-L	17-Sep-2025	26-Sep-2025	3 days	9 days	× EHTR	27-Sep-2025	3 days	9 days	× EHTR

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE AC B-4	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE ACB-1	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE ACB-2	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE ATWL -3	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE DUP	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Field Blank	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Ref - 1	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Rinseate	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Trip Blank	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE WRC - BF	E235.SO4	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) AC B-4	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) ACB-1	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) ACB-2	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) ATWL -3	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) Field Blank	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) Ref - 1	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) Rinseate	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
Trip Blank	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
WRC - BF	E372-U	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	27-Sep-2025	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid)										
Field Blank	E509	17-Sep-2025	29-Sep-2025	0 hrs	280 hrs	× UCP	29-Sep-2025	0 hrs	280 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid)										
Trip Blank	E509	17-Sep-2025	29-Sep-2025	0 hrs	280 hrs	× UCP	29-Sep-2025	0 hrs	280 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid)										
DUP	E509	17-Sep-2025	29-Sep-2025	0 hrs	281 hrs	× UCP	29-Sep-2025	0 hrs	281 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid)										
WRC - BF	E509	17-Sep-2025	29-Sep-2025	0 hrs	281 hrs	× UCP	29-Sep-2025	0 hrs	281 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid)										
ACB-2	E509	17-Sep-2025	29-Sep-2025	0 hrs	282 hrs	× UCP	29-Sep-2025	0 hrs	282 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid)										
ACB-1	E509	17-Sep-2025	29-Sep-2025	0 hrs	283 hrs	× UCP	29-Sep-2025	0 hrs	283 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid)										
Ref - 1	E509	17-Sep-2025	29-Sep-2025	0 hrs	283 hrs	× UCP	29-Sep-2025	0 hrs	283 hrs	× UCP

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid) ATWL -3	E509	17-Sep-2025	29-Sep-2025	0 hrs	284 hrs	× UCP	29-Sep-2025	0 hrs	284 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid) Rinseate	E509	17-Sep-2025	29-Sep-2025	0 hrs	286 hrs	× UCP	29-Sep-2025	0 hrs	286 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
HDPE dissolved (nitric acid) AC B-4	E509	17-Sep-2025	29-Sep-2025	0 hrs	287 hrs	× UCP	29-Sep-2025	0 hrs	287 hrs	× UCP
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) AC B-4	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) ACB-1	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) ACB-2	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) ATWL -3	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) Field Blank	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) Ref - 1	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) Rinseate	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) Trip Blank	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) WRC - BF	E421	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE AC B-4	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE ACB-1	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE ACB-2	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE ATWL -3	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DUP	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE Field Blank	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE Ref - 1	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE Rinseate	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE Trip Blank	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE WRC - BF	E290	17-Sep-2025	26-Sep-2025	14 days	9 days	✓	26-Sep-2025	14 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE AC B-4	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE ACB-1	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE ACB-2	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE ATWL -3	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE DUP	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE Field Blank	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE Ref - 1	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE Rinseate	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE Trip Blank	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : Conductivity in Water										
HDPE WRC - BF	E100	17-Sep-2025	26-Sep-2025	28 days	9 days	✓	26-Sep-2025	28 days	9 days	✓
Physical Tests : pH by Meter										
HDPE Field Blank	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	213 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	213 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE Trip Blank	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	213 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	213 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DUP	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	214 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	214 hrs	× EHTR-FM

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE WRC - BF	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	214 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	214 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE ACB-1	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	216 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	216 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE ATWL -3	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	217 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	217 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE ACB-2	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	218 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	218 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE Ref - 1	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	219 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	219 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE Rinseate	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	219 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	219 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE AC B-4	E108	17-Sep-2025	26-Sep-2025	0.25 hrs	220 hrs	× EHTR-FM	26-Sep-2025	0.25 hrs	220 hrs	× EHTR-FM
Physical Tests : TSS by Gravimetry										
HDPE AC B-4	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry										
HDPE ACB-1	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : TSS by Gravimetry										
HDPE ACB-2	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry										
HDPE ATWL -3	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry										
HDPE DUP	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry										
HDPE Field Blank	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry										
HDPE Ref - 1	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry										
HDPE Rinseate	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry										
HDPE Trip Blank	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry										
HDPE WRC - BF	E160	17-Sep-2025	----	----	----		26-Sep-2025	7 days	9 days	× EHT
Physical Tests : Turbidity by Nephelometry										
HDPE AC B-4	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Physical Tests : Turbidity by Nephelometry										
HDPE ACB-1	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE ACB-2	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE ATWL -3	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE DUP	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE Field Blank	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE Ref - 1	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE Rinseate	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE Trip Blank	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE WRC - BF	E121	17-Sep-2025	----	----	----		26-Sep-2025	3 days	9 days	× EHTR

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) Field Blank	E508	17-Sep-2025	27-Sep-2025	0 hrs	229 hrs	× UCP	27-Sep-2025	0 hrs	229 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) Trip Blank	E508	17-Sep-2025	27-Sep-2025	0 hrs	229 hrs	× UCP	27-Sep-2025	0 hrs	229 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) DUP	E508	17-Sep-2025	27-Sep-2025	0 hrs	230 hrs	× UCP	27-Sep-2025	0 hrs	230 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) WRC - BF	E508	17-Sep-2025	27-Sep-2025	0 hrs	230 hrs	× UCP	27-Sep-2025	0 hrs	230 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) ACB-1	E508	17-Sep-2025	27-Sep-2025	0 hrs	231 hrs	× UCP	27-Sep-2025	0 hrs	231 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) ACB-2	E508	17-Sep-2025	27-Sep-2025	0 hrs	231 hrs	× UCP	27-Sep-2025	0 hrs	231 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) ATWL -3	E508	17-Sep-2025	27-Sep-2025	0 hrs	232 hrs	× UCP	27-Sep-2025	0 hrs	232 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) Ref - 1	E508	17-Sep-2025	27-Sep-2025	0 hrs	232 hrs	× UCP	27-Sep-2025	0 hrs	232 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) Rinseate	E508	17-Sep-2025	27-Sep-2025	0 hrs	235 hrs	× UCP	27-Sep-2025	0 hrs	235 hrs	× UCP

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Mercury in Water by CVAAS										
HDPE total (nitric acid) AC B-4	E508	17-Sep-2025	27-Sep-2025	0 hrs	236 hrs	× UCP	27-Sep-2025	0 hrs	236 hrs	× UCP
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) AC B-4	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) ACB-1	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) ACB-2	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) ATWL -3	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Field Blank	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Ref - 1	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Rinseate	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓

Matrix: **Water**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
Trip Blank	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
WRC - BF	E420	17-Sep-2025	27-Sep-2025	180 days	10 days	✓	29-Sep-2025	180 days	10 days	✓

Legend & Qualifier Definitions

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

EHTR: Exceeded ALS recommended hold time prior to sample receipt.

EHT: Exceeded ALS recommended hold time prior to analysis.

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

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

Quality Control Parameter Frequency Compliance

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

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2244378	2	39	5.1	5.0	✓
pH by Meter	E108	2244376	2	39	5.1	5.0	✓
Turbidity by Nephelometry	E121	2244199	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	2244142	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	2244381	2	39	5.1	5.0	✓
Chloride in Water by IC	E235.Cl	2244380	2	39	5.1	5.0	✓
Fluoride in Water by IC	E235.F	2244379	2	40	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	2244383	2	40	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	2244382	2	40	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	2244384	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	2244377	2	40	5.0	5.0	✓
Ammonia by Fluorescence	E298	2244302	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2244301	1	10	10.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2244385	2	19	10.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2237706	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2237612	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	2245321	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	2247776	2	34	5.8	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2244378	2	39	5.1	5.0	✓
pH by Meter	E108	2244376	2	39	5.1	5.0	✓
Turbidity by Nephelometry	E121	2244199	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	2244142	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	2244381	2	39	5.1	5.0	✓
Chloride in Water by IC	E235.Cl	2244380	2	39	5.1	5.0	✓
Fluoride in Water by IC	E235.F	2244379	2	40	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	2244383	2	40	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	2244382	2	40	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	2244384	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	2244377	2	40	5.0	5.0	✓
Ammonia by Fluorescence	E298	2244302	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2244301	1	10	10.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2244385	2	19	10.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2237706	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2237612	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	2245321	1	20	5.0	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Dissolved Mercury in Water by CVAAS	E509	2247776	2	34	5.8	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2244378	2	39	5.1	5.0	✓
Turbidity by Nephelometry	E121	2244199	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	2244142	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	2244381	2	39	5.1	5.0	✓
Chloride in Water by IC	E235.Cl	2244380	2	39	5.1	5.0	✓
Fluoride in Water by IC	E235.F	2244379	2	40	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	2244383	2	40	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	2244382	2	40	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	2244384	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	2244377	2	40	5.0	5.0	✓
Ammonia by Fluorescence	E298	2244302	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2244301	1	10	10.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2244385	2	19	10.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2237706	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2237612	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	2245321	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	2247776	2	34	5.8	5.0	✓
Matrix Spikes (MS)							
Bromide in Water by IC (Low Level)	E235.Br-L	2244381	2	39	5.1	5.0	✓
Chloride in Water by IC	E235.Cl	2244380	2	39	5.1	5.0	✓
Fluoride in Water by IC	E235.F	2244379	2	40	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	2244383	2	40	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	2244382	2	40	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	2244384	2	40	5.0	5.0	✓
Ammonia by Fluorescence	E298	2244302	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2244301	1	10	10.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2244385	2	19	10.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2237706	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2237612	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	2245321	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	2247776	2	34	5.8	5.0	✓

Methodology References and Summaries

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

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Vancouver	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Vancouver	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Vancouver	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Vancouver	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Bromide in Water by IC (Low Level)	E235.Br-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC	E235.Cl ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Vancouver	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Vancouver	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Vancouver	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Vancouver	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Vancouver	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Vancouver	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Vancouver	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as $CaCO_3$ equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.

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

QUALITY CONTROL REPORT

Work Order	: **VA25C5004**	Page	: 1 of 19
Client	: Hatfield Consultants LLP	Laboratory	: ALS Environmental - Vancouver
Contact	: Benjamin Beall	Account Manager	: Brent Mack
Address	: 200 - 299 Victoria Street Prince George BC Canada	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 604 926 3261	Telephone	: 778-370-3279
Project	: Kemess Mine	Date Samples Received	: 22-Sep-2025 11:55
PO	: 4500002781	Date Analysis Commenced	: 26-Sep-2025
C-O-C number	: 23-1161835	Issue Date	: 01-Oct-2025 16:17
Sampler	: ----		
Site	: AMI/Kemess Mine		
Quote number	: VA23-CEGO100-004 (Hatfield c/o Centerra)		
No. of samples received	: 10		
No. of samples analysed	: 10		

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Chau Tran	Analyst	Vancouver Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
Marianne Jensen	Analyst- General	Vancouver Inorganics, Burnaby, British Columbia
Robert Nguyen	Analyst	Vancouver Metals, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 2244142)											
VA25C4537-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	3.4	4.0	0.6	Diff <2x LOR	----
Physical Tests (QC Lot: 2244199)											
VA25C5004-001	WRC - BF	Turbidity	----	E121	0.10	NTU	50.2	50.2	0.0398%	15%	----
Physical Tests (QC Lot: 2244376)											
VA25C5004-001	WRC - BF	pH	----	E108	0.10	pH units	8.11	8.12	0.123%	4%	----
Physical Tests (QC Lot: 2244377)											
VA25C5004-001	WRC - BF	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	164	162	1.06%	20%	----
Physical Tests (QC Lot: 2244378)											
VA25C5004-001	WRC - BF	Conductivity	----	E100	2.0	µS/cm	299	299	0.00%	10%	----
Physical Tests (QC Lot: 2244719)											
KS2503937-004	Anonymous	pH	----	E108	0.10	pH units	7.77	7.78	0.129%	4%	----
Physical Tests (QC Lot: 2244720)											
KS2503937-004	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	44.5	44.7	0.448%	20%	----
Physical Tests (QC Lot: 2244721)											
KS2503937-004	Anonymous	Conductivity	----	E100	2.0	µS/cm	110	110	0.00%	10%	----
Anions and Nutrients (QC Lot: 2244301)											
VA25C5004-001	WRC - BF	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.120	0.118	1.16%	20%	----
Anions and Nutrients (QC Lot: 2244302)											
VA25C5004-001	WRC - BF	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.152	0.154	0.732%	20%	----
Anions and Nutrients (QC Lot: 2244379)											
VA25C5004-001	WRC - BF	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.109	0.106	0.004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244380)											
VA25C5004-001	WRC - BF	Chloride	16887-00-6	E235.Cl	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244381)											
VA25C5004-001	WRC - BF	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244382)											
VA25C5004-001	WRC - BF	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0055	0.0050	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244383)											
VA25C5004-001	WRC - BF	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0064	0.0062	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244384)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2244384) - continued											
VA25C5004-001	WRC - BF	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	8.85	8.73	1.32%	20%	----
Anions and Nutrients (QC Lot: 2244385)											
VA25C5004-001	WRC - BF	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0076	0.0082	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244723)											
KS2503937-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.312	0.306	1.83%	20%	----
Anions and Nutrients (QC Lot: 2244724)											
KS2503937-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	1.47	1.38	0.09	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244725)											
KS2503937-001	Anonymous	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244726)											
KS2503937-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244727)											
KS2503937-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2244728)											
KS2503937-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	81.7	82.0	0.420%	20%	----
Anions and Nutrients (QC Lot: 2244730)											
KS2503937-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Total Metals (QC Lot: 2237706)											
VA25C4986-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.258	0.263	1.86%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00093	0.00094	0.000008	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00796	0.00798	0.278%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0216	0.0219	1.60%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.000024	0.000026	0.000002	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000232	0.0000214	0.0000018	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	19.6	19.3	1.40%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000172	0.000166	3.87%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00209	0.00220	0.00011	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00017	0.00018	0.00002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00143	0.00147	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	1.44	1.48	2.25%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00146	0.00143	2.11%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0015	0.0015	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Total Metals (QC Lot: 2237706) - continued											
VA25C4986-001	Anonymous	Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.30	1.33	2.26%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0479	0.0483	0.813%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000671	0.000702	4.41%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00139	0.00144	0.00005	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.315	0.323	0.008	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00082	0.00086	0.00004	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000214	0.000196	0.000019	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.87	1.86	0.427%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000060	0.000044	0.000016	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.37	1.40	2.30%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.115	0.115	0.418%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	6.66	6.59	1.09%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00039	0.00040	0.00001	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00267	0.00285	0.00018	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00068	0.00069	0.000003	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000138	0.000139	0.425%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0150	0.0154	0.0004	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 2245321)											
VA25C4851-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2237612)											
VA25C5004-001	WRC - BF	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0104	0.0110	5.15%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00012	0.00011	0.000005	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00076	0.00079	0.00003	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0626	0.0621	0.767%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 2237612) - continued											
VA25C5004-001	WRC - BF	Calcium, dissolved	7440-70-2	E421	0.050	mg/L	39.8	39.2	1.46%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00047	0.00047	0.000002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.218	0.219	0.232%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.08	4.04	1.20%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.299	0.294	1.62%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00195	0.00190	2.54%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.438	0.426	0.012	Diff <2x LOR	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00032	0.00036	0.00004	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00198	0.00204	2.81%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.10	4.17	1.72%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	18.1	17.6	2.85%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.279	0.273	2.02%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	3.22	3.27	0.04	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00052	0.00046	0.00006	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000168	0.000163	3.15%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00054	0.00053	0.000002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2247776)											
VA25C4830-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2247777)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 2247777) - continued											
VA25C5004-009	ACB-2	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

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

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2244142)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 2244199)						
Turbidity	----	E121	0.1	NTU	<0.10	----
Physical Tests (QCLot: 2244377)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2244378)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2244720)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2244721)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Anions and Nutrients (QCLot: 2244301)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2244302)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2244379)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2244380)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2244381)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2244382)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2244383)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2244384)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2244385)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2244723)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2244724)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2244724) - continued						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2244725)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2244726)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2244727)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2244728)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2244730)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Total Metals (QCLot: 2237706)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 2237706) - continued						
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 2245321)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 2237612)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2237612) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 2247776)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 2247777)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

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

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2244142)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2244199)									
Turbidity	----	E121	0.1	NTU	200 NTU	101	85.0	115	----
Physical Tests (QCLot: 2244376)									
pH	----	E108	----	pH units	7 pH units	99.7	98.0	102	----
Physical Tests (QCLot: 2244377)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2244378)									
Conductivity	----	E100	1	µS/cm	147 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2244719)									
pH	----	E108	----	pH units	7 pH units	99.6	98.0	102	----
Physical Tests (QCLot: 2244720)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	101	85.0	115	----
Physical Tests (QCLot: 2244721)									
Conductivity	----	E100	1	µS/cm	147 µS/cm	100	90.0	110	----
Anions and Nutrients (QCLot: 2244301)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	93.8	80.0	120	----
Anions and Nutrients (QCLot: 2244302)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 2244379)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 2244380)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 2244381)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 2244382)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 2244383)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.3	90.0	110	----
Anions and Nutrients (QCLot: 2244384)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100.0	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2244385)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	101	80.0	120	----
Anions and Nutrients (QCLot: 2244723)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.7	90.0	110	----
Anions and Nutrients (QCLot: 2244724)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100.0	90.0	110	----
Anions and Nutrients (QCLot: 2244725)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 2244726)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2244727)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.1	90.0	110	----
Anions and Nutrients (QCLot: 2244728)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2244730)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	105	80.0	120	----
Total Metals (QCLot: 2237706)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	110	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	106	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	109	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 2237706) - continued									
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	120	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	98.5	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	109	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	113	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	111	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	115	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	106	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	106	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	108	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	107	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Total Metals (QCLot: 2245321)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	90.4	80.0	120	----
Dissolved Metals (QCLot: 2237612)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	107	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.3	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.9	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	99.8	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	103	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	105	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2237612) - continued									
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	111	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.5	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	110	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	97.7	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	107	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	107	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.7	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	98.9	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.4	80.0	120	----

Matrix Spike (MS) Report

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

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2244301)										
VA25C5004-002	DUP	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2244302)										
VA25C5004-002	DUP	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2244379)										
VA25C5004-002	DUP	Fluoride	16984-48-8	E235.F	1.01 mg/L	1 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2244380)										
VA25C5004-002	DUP	Chloride	16887-00-6	E235.Cl	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2244381)										
VA25C5004-002	DUP	Bromide	24959-67-9	E235.Br-L	0.526 mg/L	0.5 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 2244382)										
VA25C5004-002	DUP	Nitrate (as N)	14797-55-8	E235.NO3-L	2.54 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2244383)										
VA25C5004-002	DUP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.497 mg/L	0.5 mg/L	99.4	75.0	125	----
Anions and Nutrients (QCLot: 2244384)										
VA25C5004-002	DUP	Sulfate (as SO4)	14808-79-8	E235.SO4	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2244385)										
VA25C5004-002	DUP	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0326 mg/L	0.03 mg/L	109	70.0	130	----
Anions and Nutrients (QCLot: 2244723)										
KS2503937-002	Anonymous	Fluoride	16984-48-8	E235.F	1.00 mg/L	1 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2244724)										
KS2503937-002	Anonymous	Chloride	16887-00-6	E235.Cl	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2244725)										
KS2503937-002	Anonymous	Bromide	24959-67-9	E235.Br-L	0.520 mg/L	0.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2244726)										
KS2503937-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.58 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2244727)										
KS2503937-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.501 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2244728)										
KS2503937-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2244730)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2244730) - continued										
KS2503937-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0296 mg/L	0.03 mg/L	98.8	70.0	130	----
Total Metals (QCLot: 2237706)										
VA25C4986-002	Anonymous	Aluminum, total	7429-90-5	E420	0.192 mg/L	0.2 mg/L	96.1	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Barium, total	7440-39-3	E420	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00996 mg/L	0.01 mg/L	99.6	70.0	130	----
		Boron, total	7440-42-8	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00411 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	3.87 mg/L	4 mg/L	96.8	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0391 mg/L	0.04 mg/L	97.6	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Copper, total	7440-50-8	E420	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Iron, total	7439-89-6	E420	1.88 mg/L	2 mg/L	93.8	70.0	130	----
		Lead, total	7439-92-1	E420	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0995 mg/L	0.1 mg/L	99.5	70.0	130	----
		Magnesium, total	7439-95-4	E420	0.967 mg/L	1 mg/L	96.7	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	3.75 mg/L	4 mg/L	93.8	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0187 mg/L	0.02 mg/L	93.6	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Silicon, total	7440-21-3	E420	10.6 mg/L	10 mg/L	106	70.0	130	----
		Silver, total	7440-22-4	E420	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	2.06 mg/L	2 mg/L	103	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.3 mg/L	20 mg/L	107	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00397 mg/L	0.004 mg/L	99.3	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0180 mg/L	0.02 mg/L	89.9	70.0	130	----
		Tin, total	7440-31-5	E420	0.0197 mg/L	0.02 mg/L	98.3	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0392 mg/L	0.04 mg/L	97.9	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00406 mg/L	0.004 mg/L	102	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0976 mg/L	0.1 mg/L	97.6	70.0	130	----
		Zinc, total	7440-66-6	E420	0.400 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0385 mg/L	0.04 mg/L	96.4	70.0	130	----
Total Metals (QCLot: 2245321)										
VA25C4851-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000933 mg/L	0 mg/L	93.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 2237612)										
VA25C5004-002	DUP	Aluminum, dissolved	7429-90-5	E421	0.195 mg/L	0.2 mg/L	97.5	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0388 mg/L	0.04 mg/L	97.1	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00869 mg/L	0.01 mg/L	86.9	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.099 mg/L	0.1 mg/L	99.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.90 mg/L	2 mg/L	95.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0389 mg/L	0.04 mg/L	97.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.3 mg/L	10 mg/L	103	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.90 mg/L	4 mg/L	97.4	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0190 mg/L	0.02 mg/L	95.1	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.23 mg/L	10 mg/L	92.3	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00393 mg/L	0.004 mg/L	98.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.8 mg/L	20 mg/L	98.8	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0387 mg/L	0.04 mg/L	96.9	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00389 mg/L	0.004 mg/L	97.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0381 mg/L	0.04 mg/L	95.2	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	98.3	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0995 mg/L	0.1 mg/L	99.5	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.407 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 2247776)										
VA25C4830-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000102 mg/L	0 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 2247777)										
VA25C5004-010	Ref - 1	Mercury, dissolved	7439-97-6	E509	0.0001000 mg/L	0 mg/L	100.0	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 23 - 1161835

Page 1 of 1

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Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	Ben Beall
Phone:	
	Company address below will appear on the final report
Street:	200-850 Harbourside Dr.
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

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

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: bbeall@hatfieldgroup.com

Email 2:

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounting-canada@

Email 2: hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge

Additional fees may apply to rush requests on weekends, statutory holidays and non-standard TAT.

☐ Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please contact your AM to confirm availability.

Analysis Request

Environmental Division
Vancouver
Work Order Reference
VA25C5004

Telephone : +1 604 253 4188

Project Information	
ALS Client Code / QUOTE #:	
Job / Project #:	
PO / AFE:	
LSD:	
ALS Lab Work Order # (ALS use only):	VA25C5004

Oil and Gas Required Fields (client use)

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

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	General	Total metals	P F/P Dissolved metals	P Total nutrients	F/P Dissolved nutrients	P Total mercury	F/P Dissolved Mercury	SAMPLES ON HOLD	EXTENDED STORAGE REQU	SUSPECTED HAZARD (see notes)
	WRC - BP	17-Sep-25	1548	Water	5	R	R	R	R	R	R	R			
	DUP	17Sep25	1548	Water	5	R	R	R	R	R	R	R			
	Rinseate	17Sep25	1055	Water	5	R	R	R	R	R	R	R			
	ACB-4	17Sep25	1005	Water	5	R	R	R	R	R	R	R			
	Field Blank	17Sep25	1656	Water	5	R	R	R	R	R	R	R			
	Trip Blank	17Sep25	1658	Water	5	R	R	R	R	R	R	R			
	ATWL-3	17Sep25	1334	Water	5	R	R	R	R	R	R	R			
	ACB-1	17Sep25	1412	Water	5	R	R	R	R	R	R	R			
	ACB-2	17Sep25	1453	Water	5	R	R	R	R	R	R	R			
	Ref-1	17Sep25	1354	Water	5	R	R	R	R	R	R	R			

PGAE Shipping & Receiving
Call Out
Expedite
Priority
Air
Ground
1 # of Coolers
# of Carboys

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☑ COOLING INITIATED

Cooler Custody Seals Intact: ☐ YES ☑ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
1.2	2.6			1.26			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: MJ	Date: 18/09/25	Time: 1400	Received by: TD	Date: 09/19/2025	Time: 830	Received by:	Date: Sept 22	Time: 11:55

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

JAN 2023 FRONT

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

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

Chain of Custody (COC) / Analytical Request Form

COC Number: 23 - 1161835

Page 1 of 1

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Environmental Division
Vancouver
Work Order Reference
VA25C5004

Telephone : +1 604 253 4188

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Hatfield Consultants	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ben Beall	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge
Phone:		☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge
Street:	200-850 Harbourside Dr.	Email 1 or Fax bbeall@hatfieldgroup.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge
City/Province:	North Vancouver, BC	Email 2	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge
Postal Code:	V7P 0A3	Email 3	Additional fees may apply to rush requests on weekends, statutory holidays and non-standard TAT.
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Recipients	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.
Company:		Email 1 or Fax accounting-canada@hatfieldgroup.com	Analysis Request
Contact:		Email 2	

Project Information	Oil and Gas Required Fields (client use)	
ALS Client Code / QUOTE #:	AFE/Cost Center:	PO#
Job / Project #:	Major/Minor Code:	Routing Code:
PO / AFE:	Requisitioner:	
LSD:	Location:	
ALS Lab Work Order # (ALS use only): VA25C5004	ALS Contact:	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	General	P Total metals	F/P Dissolved metals	P Total nutrients	F/P Dissolved nutrients	P Total mercury	F/P Dissolved Mercury	SAMPLES ON HOLD	EXTENDED STORAGE REQU	SUSPECTED HAZARD (see notes)
	WRC-BP	17-Sep-25	1548	Water	5	R	R	R	R	R	R	R			
	DUP	17Sep25	1548	Water	5	R	R	R	R	R	R	R			
	Rinsate	17Sep25	1055	Water	5	R	R	R	R	R	R	R			
	ACB-4	17Sep25	1005	Water	5	R	R	R	R	R	R	R			
	Field Blank	17Sep25	1656	Water	5	R	R	R	R	R	R	R			
	Trip Blank	17Sep25	1658	Water	5	R	R	R	R	R	R	R			
	ATWL-3	17Sep25	1334	Water	5	R	R	R	R	R	R	R			
	ACB-1	17Sep25	1412	Water	5	R	R	R	R	R	R	R			
	ACB-2	17Sep25	1453	Water	5	R	R	R	R	R	R	R			
	Ref-1	17Sep25	1354	Water	5	R	R	R	R	R	R	R			

PGAE Shipping & Receiving
Call Out — Expedite — Priority
# of Coolers — Air
# of Carboys — Ground

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☑ COOLING INITIATED

Cooler Custody Seals Intact: ☐ YES ☑ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
1.2	2.6			1.6			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: MJ	Date: 18/09/25	Time: 1400	Received by: TD	Date: 09/19/2025	Time: 830	Received by:	Date: Sept 22	Time: 11:55

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

JAN 2025 FRONT

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

Appendix A3

Periphyton

Table A3.1 Summary of periphyton biomass in Attichika and Waste Rock creeks, September 2025.

Station	Replicate	Guideline ($\mu g/cm^2$)	Chlorophyll-*a* $\mu g/cm^2$
EEM-13	1	10	4.4
	2	10	1.5
	3	10	0.83
	4	10	0.51
	5	10	0.42
EEM-17	1	10	0.17
	2	10	0.53
	3	10	0.17
	4	10	0.51
	5	10	0.41
ATT-IDZ	1	10	0.68
	2	10	1.2
	3	10	0.91
	4	10	1.2
	5	10	0.40
EEM-18	1	10	6.3
	2	10	3.5
	3	10	0.68
	4	10	0.16
	5	10	0.49
WQ-14F	1	10	3.1
	2	10	0.68
	3	10	3.1
	4	10	2.7
	5	10	2.9
WQ-14ds	1	10	0.49
	2	10	0.16
	3	10	0.86
	4	10	0.12
	5	10	0.42
WRC-5	1	10	6.3
	2	10	0.021
	3	10	0.033
	4	10	0.33
	5	10	0.35

Table A3.2 Summary of periphyton ash-free dry weight in Attichika and Waste Rock creeks, September 2025.

Station	Replicate	Detection Limit (g/sample)	Ash-Free Dry Weight
			g/cm^2
EEM-13	1	0.001	3.4
	2	0.001	12
	3	0.001	3.5
	4	0.001	7.9
	5	0.001	9.4
EEM-17	1	0.001	16
	2	0.001	5.9
	3	0.001	2.5
	4	0.001	12
	5	0.001	3.1
ATT-IDZ	1	0.001	7.3
	2	0.001	17
	3	0.001	11
	4	0.001	14
	5	0.001	17
EEM-18	1	0.001	60
	2	0.001	17
	3	0.001	6.4
	4	0.001	36
	5	0.001	9.4
WQ-14F	1	0.001	47
	2	0.001	30
	3	0.001	25
	4	0.001	32
	5	0.001	42
WQ-14ds	1	0.001	12
	2	0.001	2.6
	3	0.001	7.3
	4	0.001	0.69
	5	0.001	4.8
WRC-5	1	0.001	39
	2	0.001	0.31
	3	0.001	0.75
	4	0.001	3.2
	5	0.001	9.3

Table A3.3 Summary of Mann-Kendall results for chlorophyll *a* in Attihcika and Waste Rock creeks, 2018 to 2025.

Station	Correlation Coefficient (Tau)	*p*-value	Sen's Slope	Sen's Intercept	Sen's Intercept Lower Confidence Interval (95%)	Sen's Intercept Upper Confidence Interval (95%)	*p*-value Significant (<0.05)
EEM-13	<0.001	1.00	<0.001	0.20	-0.045	<0.001	F
EEM-17	-0.20	0.44	-0.08	165	-0.95	0.10	F
ATT-IDZ	-0.15	0.59	-0.21	413	-0.97	0.28	F
EEM-18	0.018	1.00	0.02	-39	-0.52	0.56	F
WQ-14F	-0.52	0.13	-1.77	3581	-5.9	0.40	F
WQ-14ds	0.17	0.60	0.031	-62	-0.48	0.24	F
WRC-5	0.44	0.12	0.12	-249	-0.22	0.23	F

F = false, T = true

* For reporting purposes, a significant difference is True if the p-value is less than 0.05 and Sen's slope is significantly different than 0, as determined by the 95% confidence interval of the slope.
The annual rate of change can be estimated by the ratio between the slope and the intercept.

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25C4941**			
Client	:	**Hatfield Consultants LLP**	Laboratory	:	ALS Environmental - Vancouver
Contact	:	Benjamin Beall	Account Manager	:	Brent Mack
Address	:	200 - 850 Harbourside Drive North Vancouver British Columbia Canada V7P 0A3	Address	:	8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	604 926 3261	E-mail	:	Brent.Mack@ALSGlobal.com
Project	:	KEM12954	Telephone	:	778-370-3279
PO	:	----	Date Samples Received	:	19-Sep-2025 22:00
C-O-C number	:	----	Date Analysis Commenced	:	01-Oct-2025
Sampler	:	Hatfield	Issue Date	:	04-Dec-2025 07:35
Site	:	2025 Kemess FAEMP Program			
Quote number	:	VA25-HATF100-011			
No. of samples received	:	100			
No. of samples analysed	:	100			

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Bita Emamgholi	Lab Assistant	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Miles Gropen	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia

General Comments

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

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

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

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

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

Unit	*Description*
%	percent
g/sample	grams per sample
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight
µg	micrograms

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

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
DLA	Detection Limit adjusted for required dilution.

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WRC-5 Rep 1 ----	WRC-5 Rep 2 ----	WRC-5 Rep 3 ----	WRC-5 Rep 4 ----	WRC-5 Rep 5 ----
					Client sampling date / time	11-Sep-2025 12:10	11-Sep-2025 12:15	11-Sep-2025 12:22	11-Sep-2025 12:31	11-Sep-2025 12:40
						VA25C4941-001	VA25C4941-002	VA25C4941-003	VA25C4941-004	VA25C4941-005
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0628	<0.0010	0.0012	0.0051	0.0149
Ash weight	----	E137/VA	0.0010	g/sample		0.172	0.0078	0.0020	0.0027	0.0109
Weight, dry	----	E137/VA	0.0010	g/sample		0.235	0.0078	0.0033	0.0078	0.0259

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WQ-14ds Rep 1 ----	WQ-14ds Rep 2 ----	WQ-14ds Rep 3 ----	WQ-14ds Rep 4 ----	WQ-14ds Rep 5 ----
					Client sampling date / time	11-Sep-2025 15:00	11-Sep-2025 15:09	11-Sep-2025 15:14	11-Sep-2025 15:32	11-Sep-2025 15:38
						VA25C4941-006	VA25C4941-007	VA25C4941-008	VA25C4941-009	VA25C4941-010
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0185	0.0041	0.0116	0.0011	0.0077
Ash weight	----	E137/VA	0.0010	g/sample		0.0068	0.0016	0.0051	0.0040	0.0047
Weight, dry	----	E137/VA	0.0010	g/sample		0.0253	0.0057	0.0167	0.0051	0.0124

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13- Rep 1 ----	EEM-13- Rep 2 ----	EEM-13 Rep 3 ----	EEM-13 Rep 4 ----	EEM-13 Rep 5 ----
					Client sampling date / time	12-Sep-2025 08:28	12-Sep-2025 08:28	12-Sep-2025 08:29	12-Sep-2025 08:30	12-Sep-2025 08:30
						VA25C4941-011	VA25C4941-012	VA25C4941-013	VA25C4941-014	VA25C4941-015
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0054	0.0197	0.0056	0.0127	0.0150
Ash weight	----	E137/VA	0.0010	g/sample		0.0365	0.118	0.0162	0.130	0.205
Weight, dry	----	E137/VA	0.0010	g/sample		0.0418	0.138	0.0219	0.142	0.220

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB-3 Rep 1 ----	ACB-3 Rep 2 ----	ACB-3 Rep 3 ----	ACB-3 Rep 4 ----	ACB-3 Rep 5 ----
					Client sampling date / time	12-Sep-2025 15:02	12-Sep-2025 15:00	12-Sep-2025 15:00	12-Sep-2025 15:23	12-Sep-2025 15:20
						VA25C4941-016	VA25C4941-017	VA25C4941-018	VA25C4941-019	VA25C4941-020
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0038	0.0020	0.0022	0.0034	0.0045
Ash weight	----	E137/VA	0.0010	g/sample		0.0237	0.0024	0.0099	0.0140	0.0812
Weight, dry	----	E137/VA	0.0010	g/sample		0.0275	0.0045	0.0121	0.0174	0.0857

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-17 Rep 1 ----	EEM-17 Rep 2 ----	EEM-17 Rep 3 ----	EEM-17 Rep 4 ----	EEM-17 Rep 5 ----
					Client sampling date / time	13-Sep-2025 10:35	13-Sep-2025 10:34	13-Sep-2025 10:50	13-Sep-2025 11:00	13-Sep-2025 11:05
						VA25C4941-021	VA25C4941-022	VA25C4941-023	VA25C4941-024	VA25C4941-025
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0259	0.0095	0.0040	0.0190	0.0049
Ash weight	----	E137/VA	0.0010	g/sample		0.709	0.0379	0.0015	0.305	0.0459
Weight, dry	----	E137/VA	0.0010	g/sample		0.735	0.0474	0.0055	0.324	0.0508

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB-1 Rep 1 ----	ACB-1 Rep 2 ----	ACB-1 Rep 3 ----	ACB-1 Rep 4 ----	ACB-1 Rep 5 ----
					Client sampling date / time	14-Sep-2025 14:28	14-Sep-2025 14:35	14-Sep-2025 14:44	14-Sep-2025 14:45	14-Sep-2025 14:54
						VA25C4941-026	VA25C4941-027	VA25C4941-028	VA25C4941-029	VA25C4941-030
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0038	<0.0010	<0.0010	0.0025	<0.0010
Ash weight	----	E137/VA	0.0010	g/sample		0.0022	0.0147	0.0189	0.0058	0.0425
Weight, dry	----	E137/VA	0.0010	g/sample		0.0060	0.0151	0.0198	0.0083	0.0435

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ATT-IDZ Rep 1 ----	ATT-IDZ Rep 2 ----	ATT-IDZ Rep 3 ----	ATT-IDZ Rep 4 ----	ATT-IDZ Rep 5 ----
					Client sampling date / time	15-Sep-2025 16:49	15-Sep-2025 17:08	15-Sep-2025 17:06	15-Sep-2025 17:22	15-Sep-2025 17:21
						VA25C4941-031	VA25C4941-032	VA25C4941-033	VA25C4941-034	VA25C4941-035
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0116	0.0274	0.0175	0.0230	0.0279
Ash weight	----	E137/VA	0.0010	g/sample		0.0653	0.0867	0.0154	0.0332	0.0555
Weight, dry	----	E137/VA	0.0010	g/sample		0.0770	0.114	0.0328	0.0563	0.0834

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB-4 Rep 1 ----	ACB-4 Rep 2 ----	ACB-4 Rep 3 ----	ACB-4 Rep 4 ----	ACB-4 Rep 5 ----
					Client sampling date / time	17-Sep-2025 11:36	17-Sep-2025 11:40	17-Sep-2025 11:41	17-Sep-2025 11:51	17-Sep-2025 11:51
						VA25C4941-036	VA25C4941-037	VA25C4941-038	VA25C4941-039	VA25C4941-040
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0058	<0.0010	<0.0010	0.0093	<0.0010
Ash weight	----	E137/VA	0.0010	g/sample		0.240	<0.0010	0.0018	0.0585	<0.0010
Weight, dry	----	E137/VA	0.0010	g/sample		0.246	<0.0010	0.0020	0.0678	<0.0010

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-18 Rep 1 ----	EEM-18 Rep 2 ----	EEM-18 Rep 3 ----	EEM-18 Rep 4 ----	EEM-18 Rep 5 ----
					Client sampling date / time	16-Sep-2025 12:30	16-Sep-2025 12:45	16-Sep-2025 12:49	16-Sep-2025 12:55	16-Sep-2025 13:04
						VA25C4941-041	VA25C4941-042	VA25C4941-043	VA25C4941-044	VA25C4941-045
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0955	0.0270	0.0102	0.0572	0.0151
Ash weight	----	E137/VA	0.0010	g/sample		0.0938	0.0368	0.0174	0.119	0.0194
Weight, dry	----	E137/VA	0.0010	g/sample		0.189	0.0638	0.0276	0.176	0.0345

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 Rep 1 ----	EEM-13 Rep 2 ----	EEM-13 Rep 3 ----	EEM-13 Rep 4 ----	EEM-13 Rep 5 ----
					Client sampling date / time	10-Sep-2025 00:00	10-Sep-2025 00:00	10-Sep-2025 00:00	10-Sep-2025 00:00	10-Sep-2025 00:00
						VA25C4941-046	VA25C4941-047	VA25C4941-048	VA25C4941-049	VA25C4941-050
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		70.9	23.7	13.2	8.14	6.69

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WRC-5 Rep 1 ----	WRC-5 Rep 2 ----	WRC-5 Rep 3 ----	WRC-5 Rep 4 ----	WRC-5 Rep 5 ----
					Client sampling date / time	11-Sep-2025 00:00	11-Sep-2025 12:05	11-Sep-2025 00:00	11-Sep-2025 12:25	11-Sep-2025 12:28
						VA25C4941-051	VA25C4941-052	VA25C4941-053	VA25C4941-054	VA25C4941-055
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		101	0.329	0.532	5.28	5.57

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WQ-14ds Rep 1 ----	WQ-14ds Rep 2 ----	WQ-14ds Rep 3 ----	WQ-14ds Rep 4 ----	WQ-14ds Rep 5 ----
					Client sampling date / time	11-Sep-2025 14:50	11-Sep-2025 14:54	11-Sep-2025 15:10	11-Sep-2025 15:19	11-Sep-2025 15:30
						VA25C4941-056	VA25C4941-057	VA25C4941-058	VA25C4941-059	VA25C4941-060
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		7.90	2.57	13.8	1.96	6.75

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB 3 Rep 1 ----	ACB 3 Rep 2 ----	ACB 3 Rep 3 ----	ACB 3 Rep 4 ----	ACB 3 Rep 5 ----
					Client sampling date / time	12-Sep-2025 14:55	12-Sep-2025 14:50	12-Sep-2025 14:55	12-Sep-2025 15:15	12-Sep-2025 15:15
						VA25C4941-061	VA25C4941-062	VA25C4941-063	VA25C4941-064	VA25C4941-065
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		7.22	5.48	8.98	9.54	6.80

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-17 Rep 1 ----	EEM-17 Rep 2 ----	EEM-17 Rep 3 ----	EEM-17 Rep 4 ----	EEM-17 Rep 5 ----
					Client sampling date / time	13-Sep-2025 10:25	13-Sep-2025 10:28	13-Sep-2025 10:40	13-Sep-2025 10:55	13-Sep-2025 11:05
						VA25C4941-066	VA25C4941-067	VA25C4941-068	VA25C4941-069	VA25C4941-070
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		2.73	8.49	2.64	8.22	6.49

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB-1 Rep 1 ----	ACB-1 Rep 2 ----	ACB-1 Rep 3 ----	ACB-1 Rep 4 ----	ACB-1 Rep 5 ----
					Client sampling date / time	14-Sep-2025 14:21	14-Sep-2025 14:30	14-Sep-2025 14:36	14-Sep-2025 14:40	14-Sep-2025 14:47
						VA25C4941-071	VA25C4941-072	VA25C4941-073	VA25C4941-074	VA25C4941-075
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		3.08	1.20	2.31	1.19	0.870

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ATT-IDZ Rep 1 ----	ATT-IDZ Rep 2 ----	ATT-IDZ Rep 3 ----	ATT-IDZ Rep 4 ----	ATT-IDZ Rep 5 ----
					Client sampling date / time	15-Sep-2025 16:45	15-Sep-2025 17:01	15-Sep-2025 17:02	15-Sep-2025 17:14	15-Sep-2025 17:17
						VA25C4941-076	VA25C4941-077	VA25C4941-078	VA25C4941-079	VA25C4941-080
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		10.8	19.0	14.5	18.7	6.44

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

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB 4 Rep 1 ----	ACB 4 Rep 2 ----	ACB 4 Rep 3 ----	ACB 4 Rep 4 ----	ACB 4 Rep 5 ----
					Client sampling date / time	17-Sep-2025 11:26	17-Sep-2025 11:35	17-Sep-2025 11:37	17-Sep-2025 11:47	17-Sep-2025 11:47
						VA25C4941-081	VA25C4941-082	VA25C4941-083	VA25C4941-084	VA25C4941-085
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		8.52	0.022	0.616	21.2	0.140

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

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM 18 Rep 1 ----	EEM 18 Rep 2 ----	EEM 18 Rep 3 ----	EEM 18 Rep 4 ----	EEM 18 Rep 5 ----
					Client sampling date / time	16-Sep-2025 12:35	16-Sep-2025 12:45	16-Sep-2025 12:43	16-Sep-2025 12:50	16-Sep-2025 13:00
						VA25C4941-086	VA25C4941-087	VA25C4941-088	VA25C4941-089	VA25C4941-090
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		100	55.4	10.9	2.54	7.85

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

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 ----	WRC-5 ----	WQ-14ds ----	ACB-3 ----	DUP 1 ----
					Client sampling date / time	10-Sep-2025 00:00	11-Sep-2025 12:45	11-Sep-2025 15:35	12-Sep-2025 15:30	12-Sep-2025 15:15
						VA25C4941-091	VA25C4941-092	VA25C4941-093	VA25C4941-094	VA25C4941-095
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144A/VA	2.0	%		----	----	72.1	----	----
Moisture	----	E144-H/VA	2.0	%		73.9	73.3	----	58.9	57.2
Metals										
Aluminum	7429-90-5	E475/VA	5.0	mg/kg		----	----	6980	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		19100	14000	----	23700	27400
Aluminum	7429-90-5	E475A/VA	1.0	mg/kg wwt		----	----	1950	----	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		4990	3760	----	9760	11700
Antimony	7440-36-0	E475/VA	0.020	mg/kg		----	----	0.120	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.029 DLA	0.046	----	0.077	0.051
Antimony	7440-36-0	E475A/VA	0.0040	mg/kg wwt		----	----	0.0335	----	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0075 DLA	0.0123	----	0.0316	0.0218
Arsenic	7440-38-2	E475/VA	0.050	mg/kg		----	----	10.5	----	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		5.60	8.72	----	20.8	20.6

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 ----	WRC-5 ----	WQ-14ds ----	ACB-3 ----	DUP 1 ----
					Client sampling date / time	10-Sep-2025 00:00	11-Sep-2025 12:45	11-Sep-2025 15:35	12-Sep-2025 15:30	12-Sep-2025 15:15
						VA25C4941-091	VA25C4941-092	VA25C4941-093	VA25C4941-094	VA25C4941-095
						Result	Result	Result	Result	Result
Metals										
Arsenic	7440-38-2	E475A/VA	0.010	mg/kg wwt		----	----	2.92	----	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		1.46	2.33	----	8.56	8.80
Barium	7440-39-3	E475/VA	0.050	mg/kg		----	----	306	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		210	459	----	244	251
Barium	7440-39-3	E475A/VA	0.010	mg/kg wwt		----	----	85.2	----	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		54.9	123	----	100	107
Beryllium	7440-41-7	E475/VA	0.010	mg/kg		----	----	0.203	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		0.441	0.433	----	0.589	0.658
Beryllium	7440-41-7	E475A/VA	0.0020	mg/kg wwt		----	----	0.0566	----	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		0.115	0.116	----	0.242	0.281
Bismuth	7440-69-9	E475/VA	0.010	mg/kg		----	----	0.063	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		0.077	0.128	----	0.187	0.200
Bismuth	7440-69-9	E475A/VA	0.0020	mg/kg wwt		----	----	0.0177	----	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		0.0200	0.0343	----	0.0769	0.0856
Boron	7440-42-8	E475/VA	1.0	mg/kg		----	----	10.2	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		<2.9 DLA	8.5	----	<2.2 DLA	<1.9 DLA
Boron	7440-42-8	E475A/VA	0.20	mg/kg wwt		----	----	2.84	----	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.75 DLA	2.28	----	<0.90 DLA	<0.81 DLA
Cadmium	7440-43-9	E475/VA	0.010	mg/kg		----	----	0.991	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.330	1.24	----	3.36	3.31

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 ----	WRC-5 ----	WQ-14ds ----	ACB-3 ----	DUP 1 ----
					Client sampling date / time	10-Sep-2025 00:00	11-Sep-2025 12:45	11-Sep-2025 15:35	12-Sep-2025 15:30	12-Sep-2025 15:15
						VA25C4941-091	VA25C4941-092	VA25C4941-093	VA25C4941-094	VA25C4941-095
						Result	Result	Result	Result	Result
Metals										
Cadmium	7440-43-9	E475A/VA	0.0020	mg/kg wwt		----	----	0.276	----	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0861	0.331	----	1.38	1.42
Calcium	7440-70-2	E475/VA	20	mg/kg		----	----	9030	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		9030	13500	----	12800	11500
Calcium	7440-70-2	E475A/VA	4.0	mg/kg wwt		----	----	2520	----	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		2360	3600	----	5270	4910
Cesium	7440-46-2	E475/VA	0.0050	mg/kg		----	----	0.309	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.514	0.567	----	4.26	4.41
Cesium	7440-46-2	E475A/VA	0.0010	mg/kg wwt		----	----	0.0862	----	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.134	0.152	----	1.75	1.88
Chromium	7440-47-3	E475/VA	0.20	mg/kg		----	----	110	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		36.8	52.7	----	64.5	19.0
Chromium	7440-47-3	E475A/VA	0.040	mg/kg wwt		----	----	30.8	----	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		9.61	14.1	----	26.5	8.12
Cobalt	7440-48-4	E475/VA	0.020	mg/kg		----	----	7.94	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		16.5	14.8	----	28.2	22.8
Cobalt	7440-48-4	E475A/VA	0.0040	mg/kg wwt		----	----	2.22	----	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		4.31	3.96	----	11.6	9.75
Copper	7440-50-8	E475/VA	0.20	mg/kg		----	----	50.5	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		48.6	60.5	----	45.3	54.1

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 ----	WRC-5 ----	WQ-14ds ----	ACB-3 ----	DUP 1 ----
					Client sampling date / time	10-Sep-2025 00:00	11-Sep-2025 12:45	11-Sep-2025 15:35	12-Sep-2025 15:30	12-Sep-2025 15:15
						VA25C4941-091	VA25C4941-092	VA25C4941-093	VA25C4941-094	VA25C4941-095
						Result	Result	Result	Result	Result
Metals										
Copper	7440-50-8	E475A/VA	0.040	mg/kg wwt		----	----	14.1	----	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		12.7	16.2	----	18.7	23.2
Iron	7439-89-6	E475/VA	5.0	mg/kg		----	----	19600	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		30600	25700	----	28200	32700
Iron	7439-89-6	E475A/VA	1.0	mg/kg wwt		----	----	5470	----	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		7980	6880	----	11600	14000
Lead	7439-92-1	E475/VA	0.050	mg/kg		----	----	2.98	----	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		4.54	5.41	----	11.8	12.0
Lead	7439-92-1	E475A/VA	0.010	mg/kg wwt		----	----	0.832	----	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		1.18	1.45	----	4.87	5.14
Lithium	7439-93-2	E475/VA	0.50	mg/kg		----	----	4.90	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		11.3	11.3	----	17.1	17.9
Lithium	7439-93-2	E475A/VA	0.10	mg/kg wwt		----	----	1.37	----	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		2.95	3.02	----	7.03	7.65
Magnesium	7439-95-4	E475/VA	2.0	mg/kg		----	----	3300	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		8940	5580	----	7560	7720
Magnesium	7439-95-4	E475A/VA	0.40	mg/kg wwt		----	----	920	----	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		2330	1490	----	3110	3300
Manganese	7439-96-5	E475/VA	0.050	mg/kg		----	----	4150	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		2630	6360	----	1110	1070

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 ----	WRC-5 ----	WQ-14ds ----	ACB-3 ----	DUP 1 ----
					Client sampling date / time	10-Sep-2025 00:00	11-Sep-2025 12:45	11-Sep-2025 15:35	12-Sep-2025 15:30	12-Sep-2025 15:15
						VA25C4941-091	VA25C4941-092	VA25C4941-093	VA25C4941-094	VA25C4941-095
						Result	Result	Result	Result	Result
Metals										
Manganese	7439-96-5	E475A/VA	0.010	mg/kg wwt		----	----	1160	----	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		687	1700	----	455	457
Mercury	7439-97-6	E512/VA	0.010	mg/kg		----	----	0.067	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.0319	0.0643	----	0.0106	0.0120
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt		----	----	0.0188	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0083	0.0172	----	0.0044	0.0051
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg		----	----	2.01	----	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.729	3.45	----	1.42	1.91
Molybdenum	7439-98-7	E475A/VA	0.0080	mg/kg wwt		----	----	0.561	----	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.190	0.921	----	0.585	0.817
Nickel	7440-02-0	E475/VA	0.20	mg/kg		----	----	24.3	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		23.6	28.1	----	14.4	13.7
Nickel	7440-02-0	E475A/VA	0.040	mg/kg wwt		----	----	6.77	----	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		6.15	7.52	----	5.93	5.87
Phosphorus	7723-14-0	E475/VA	20	mg/kg		----	----	1500	----	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		961	1100	----	1510	1230
Phosphorus	7723-14-0	E475A/VA	4.0	mg/kg wwt		----	----	419	----	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		251	293	----	621	526
Potassium	7440-09-7	E475/VA	20	mg/kg		----	----	3430	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg		1880	1590	----	2140	1400

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 ----	WRC-5 ----	WQ-14ds ----	ACB-3 ----	DUP 1 ----
					Client sampling date / time	10-Sep-2025 00:00	11-Sep-2025 12:45	11-Sep-2025 15:35	12-Sep-2025 15:30	12-Sep-2025 15:15
						VA25C4941-091	VA25C4941-092	VA25C4941-093	VA25C4941-094	VA25C4941-095
						Result	Result	Result	Result	Result
Metals										
Potassium	7440-09-7	E475A/VA	4.0	mg/kg wwt		----	----	957	----	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		490	424	----	882	598
Rubidium	7440-17-7	E475/VA	0.050	mg/kg		----	----	7.47	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		7.11	7.10	----	7.35	7.19
Rubidium	7440-17-7	E475A/VA	0.010	mg/kg wwt		----	----	2.08	----	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		1.85	1.90	----	3.03	3.07
Selenium	7782-49-2	E475/VA	0.10	mg/kg		----	----	12.2	----	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		0.85	13.8	----	0.46	0.55
Selenium	7782-49-2	E475A/VA	0.020	mg/kg wwt		----	----	3.39	----	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.222	3.68	----	0.190	0.233
Sodium	7440-23-5	E475/VA	20	mg/kg		----	----	280	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		127	227	----	182	149
Sodium	7440-23-5	E475A/VA	4.0	mg/kg wwt		----	----	78.0	----	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		33.0	60.7	----	75.0	63.6
Strontium	7440-24-6	E475/VA	0.10	mg/kg		----	----	63.5	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		66.2	95.0	----	82.0	83.8
Strontium	7440-24-6	E475A/VA	0.020	mg/kg wwt		----	----	17.7	----	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		17.3	25.4	----	33.7	35.8
Tellurium	13494-80-9	E475/VA	0.020	mg/kg		----	----	0.131	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.058 DLA	0.186	----	0.078	0.114

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 ----	WRC-5 ----	WQ-14ds ----	ACB-3 ----	DUP 1 ----
					Client sampling date / time	10-Sep-2025 00:00	11-Sep-2025 12:45	11-Sep-2025 15:35	12-Sep-2025 15:30	12-Sep-2025 15:15
						VA25C4941-091	VA25C4941-092	VA25C4941-093	VA25C4941-094	VA25C4941-095
						Result	Result	Result	Result	Result
Metals										
Tellurium	13494-80-9	E475A/VA	0.0040	mg/kg wwt		----	----	0.0366	----	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0151 DLA	0.0496	----	0.0322	0.0486
Thallium	7440-28-0	E475/VA	0.0020	mg/kg		----	----	0.0568	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0496	0.0599	----	0.0469	0.0491
Thallium	7440-28-0	E475A/VA	0.00040	mg/kg wwt		----	----	0.0158	----	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.0129	0.0160	----	0.0193	0.0210
Tin	7440-31-5	E475/VA	0.10	mg/kg		----	----	0.25	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.29 DLA	<0.33 DLA	----	0.22	0.22
Tin	7440-31-5	E475A/VA	0.020	mg/kg wwt		----	----	0.070	----	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.075 DLA	<0.089 DLA	----	0.093	0.093
Uranium	7440-61-1	E475/VA	0.0020	mg/kg		----	----	0.240	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		0.513	0.473	----	1.22	1.52
Uranium	7440-61-1	E475A/VA	0.00040	mg/kg wwt		----	----	0.0668	----	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		0.134	0.126	----	0.503	0.649
Vanadium	7440-62-2	E475/VA	0.10	mg/kg		----	----	23.0	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		69.8	38.1	----	47.1	48.6
Vanadium	7440-62-2	E475A/VA	0.020	mg/kg wwt		----	----	6.42	----	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		18.2	10.2	----	19.4	20.8
Zinc	7440-66-6	E475/VA	1.0	mg/kg		----	----	93.0	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		63.1	97.3	----	371	392

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM-13 ----	WRC-5 ----	WQ-14ds ----	ACB-3 ----	DUP 1 ----
					Client sampling date / time	10-Sep-2025 00:00	11-Sep-2025 12:45	11-Sep-2025 15:35	12-Sep-2025 15:30	12-Sep-2025 15:15
						VA25C4941-091	VA25C4941-092	VA25C4941-093	VA25C4941-094	VA25C4941-095
						Result	Result	Result	Result	Result
Metals										
Zinc	7440-66-6	E475A/VA	0.20	mg/kg wwt		----	----	26.0	----	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		16.5	26.0	----	153	168
Zirconium	7440-67-7	E475/VA	0.20	mg/kg		----	----	4.16	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		8.99	6.45	----	10.6	9.50
Zirconium	7440-67-7	E475A/VA	0.040	mg/kg wwt		----	----	1.16	----	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		2.35	1.72	----	4.35	4.06

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

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM 17 ----	ACB-1 ----	EEM-18 ----	ATT IDZ ----	----
					Client sampling date / time	13-Sep-2025 11:06	14-Sep-2025 15:01	16-Sep-2025 13:08	15-Sep-2025 17:22	----
						VA25C4941-096	VA25C4941-097	VA25C4941-098	VA25C4941-099	----
						Result	Result	Result	Result	----
Physical Tests										
Moisture	----	E144-H/VA	2.0	%		58.5	81.2	87.0	87.1	----
Metals										
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		16900	18800	17000	16600	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		6990	3550	2210	2130	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		0.023	0.108	0.058	0.064	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		0.0097	0.0204	0.0076	0.0082	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		7.31	19.3	10.4	13.6	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		3.03	3.63	1.36	1.75	----

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM 17 ----	ACB-1 ----	EEM-18 ----	ATT IDZ ----	----
					Client sampling date / time	13-Sep-2025 11:06	14-Sep-2025 15:01	16-Sep-2025 13:08	15-Sep-2025 17:22	----
						VA25C4941-096	VA25C4941-097	VA25C4941-098	VA25C4941-099	----
						Result	Result	Result	Result	----
Metals										
Barium	7440-39-3	E472/VA	0.050	mg/kg		127	267	167	178	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		52.5	50.3	21.8	22.9	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		0.373	0.509	0.368	0.371	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		0.155	0.0959	0.0479	0.0476	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		0.081	0.074	0.068	0.065	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		0.0338	0.0139	0.0088	0.0084	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		8.6	<4.0 DLA	35.8	77.7	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		3.55	<0.76 DLA	4.66	9.99	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.263	0.179	0.426	0.432	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.109	0.0336	0.0554	0.0555	----
Calcium	7440-70-2	E472/VA	20	mg/kg		6510	13100	20600	19400	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		2700	2470	2680	2490	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.676	6.67	0.824	0.919	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.281	1.26	0.107	0.118	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		28.5	14.3	30.3	32.6	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		11.8	2.68	3.94	4.19	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		11.7	7.04	11.4	10.9	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		4.85	1.33	1.48	1.40	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		36.2	17.3	40.2	41.4	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		15.0	3.27	5.24	5.32	----

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM 17 ----	ACB-1 ----	EEM-18 ----	ATT IDZ ----	----
					Client sampling date / time	13-Sep-2025 11:06	14-Sep-2025 15:01	16-Sep-2025 13:08	15-Sep-2025 17:22	----
						VA25C4941-096	VA25C4941-097	VA25C4941-098	VA25C4941-099	----
						Result	Result	Result	Result	----
Metals										
Iron	7439-89-6	E472/VA	5.0	mg/kg		24000	16500	26100	25600	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		9930	3100	3400	3290	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		4.57	9.98	4.28	4.18	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		1.89	1.88	0.557	0.537	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		10.8	18.4	9.99	9.83	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		4.47	3.47	1.30	1.26	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		8300	7170	6900	6640	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		3440	1350	898	853	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		862	1170	1700	1690	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		357	220	222	217	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.0160	0.0255	0.0536	0.0306	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0066	0.0048	0.0070	0.0039	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.861	0.443	2.28	2.02	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.357	0.0835	0.297	0.260	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		20.2	5.23	21.3	19.4	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		8.39	0.984	2.77	2.50	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		726	1590	1100	1100	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		301	300	144	141	----
Potassium	7440-09-7	E472/VA	20	mg/kg		881	1960	2350	2170	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		365	370	306	279	----

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM 17 ----	ACB-1 ----	EEM-18 ----	ATT IDZ ----	----
					Client sampling date / time	13-Sep-2025 11:06	14-Sep-2025 15:01	16-Sep-2025 13:08	15-Sep-2025 17:22	----
						VA25C4941-096	VA25C4941-097	VA25C4941-098	VA25C4941-099	----
						Result	Result	Result	Result	----
Metals										
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		4.20	9.72	5.33	6.63	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		1.74	1.83	0.694	0.852	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		0.55	<0.40 DLA	1.60	1.55	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.229	<0.076 DLA	0.208	0.200	----
Sodium	7440-23-5	E472/VA	20	mg/kg		136	147	322	404	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		56.3	27.6	41.9	51.9	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		62.5	83.5	107	109	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		25.9	15.7	13.9	14.0	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.041 DLA	<0.080 DLA	0.044	0.043	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0168 DLA	<0.0151 DLA	0.0057	0.0055	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0381	0.0500	0.0500	0.0503	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.0158	0.00941	0.00651	0.00646	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.20 DLA	<0.40 DLA	0.23	0.23	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.084 DLA	<0.076 DLA	0.030	0.030	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		0.647	1.05	2.11	1.28	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		0.268	0.197	0.275	0.164	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		63.8	37.2	61.9	59.8	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		26.5	7.01	8.06	7.69	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		62.0	63.9	58.1	61.5	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		25.7	12.0	7.56	7.90	----

Analytical Results

Sub-Matrix: Tissue
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	EEM 17 ----	ACB-1 ----	EEM-18 ----	ATT IDZ ----	----
					Client sampling date / time	13-Sep-2025 11:06	14-Sep-2025 15:01	16-Sep-2025 13:08	15-Sep-2025 17:22	----
						VA25C4941-096	VA25C4941-097	VA25C4941-098	VA25C4941-099	----
						Result	Result	Result	Result	----
Metals										
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		7.84	9.96	9.45	9.13	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		3.25	1.88	1.23	1.17	----

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

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25C4941**	Page	: 1 of 21
Client	: **Hatfield Consultants LLP**	Laboratory	: ALS Environmental - Vancouver
Contact	: Benjamin Beall	Account Manager	: Brent Mack
Address	: 200 - 850 Harbourside Drive North Vancouver BC Canada V7P 0A3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 604 926 3261	Telephone	: 778-370-3279
Project	: KEM12954	Date Samples Received	: 19-Sep-2025 22:00
PO	: ----	Issue Date	: 04-Dec-2025 07:34
C-O-C number	: ----		
Sampler	: Hatfield		
Site	: 2025 Kemess FAEMP Program		
Quote number	: VA25-HATF100-011		
No. of samples received	: 100		
No. of samples analysed	: 99		

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

Key

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

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

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

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

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

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

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag WQ-14ds	E512	11-Sep-2025	27-Nov-2025	365 days	77 days	✓	01-Dec-2025	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EEM-18	E511	16-Sep-2025	27-Nov-2025	365 days	72 days	✓	27-Nov-2025	365 days	72 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag ATT IDZ	E511	15-Sep-2025	27-Nov-2025	365 days	73 days	✓	27-Nov-2025	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag ACB-1	E511	14-Sep-2025	27-Nov-2025	365 days	74 days	✓	27-Nov-2025	365 days	74 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EEM 17	E511	13-Sep-2025	27-Nov-2025	365 days	75 days	✓	27-Nov-2025	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag ACB-3	E511	12-Sep-2025	27-Nov-2025	365 days	76 days	✓	27-Nov-2025	365 days	76 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag DUP 1	E511	12-Sep-2025	27-Nov-2025	365 days	76 days	✓	27-Nov-2025	365 days	76 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag WRC-5	E511	11-Sep-2025	27-Nov-2025	365 days	77 days	✓	27-Nov-2025	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag EEM-13	E511	10-Sep-2025	27-Nov-2025	365 days	79 days	✓	27-Nov-2025	365 days	79 days	✓
Metals : Mercury in Biota by CVAAS (Wet Weight, Biopsy)										
LDPE bag WQ-14ds	E512A	11-Sep-2025	27-Nov-2025	365 days	77 days	✓	01-Dec-2025	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (Wet Weight, Micro)										
LDPE bag EEM-18	E511A	16-Sep-2025	27-Nov-2025	365 days	72 days	✓	27-Nov-2025	365 days	72 days	✓
Metals : Mercury in Biota by CVAAS (Wet Weight, Micro)										
LDPE bag ATT IDZ	E511A	15-Sep-2025	27-Nov-2025	365 days	73 days	✓	27-Nov-2025	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (Wet Weight, Micro)										
LDPE bag ACB-1	E511A	14-Sep-2025	27-Nov-2025	365 days	74 days	✓	27-Nov-2025	365 days	74 days	✓
Metals : Mercury in Biota by CVAAS (Wet Weight, Micro)										
LDPE bag EEM 17	E511A	13-Sep-2025	27-Nov-2025	365 days	75 days	✓	27-Nov-2025	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (Wet Weight, Micro)										
LDPE bag ACB-3	E511A	12-Sep-2025	27-Nov-2025	365 days	76 days	✓	27-Nov-2025	365 days	76 days	✓
Metals : Mercury in Biota by CVAAS (Wet Weight, Micro)										
LDPE bag DUP 1	E511A	12-Sep-2025	27-Nov-2025	365 days	76 days	✓	27-Nov-2025	365 days	76 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Metals : Mercury in Biota by CVAAS (Wet Weight, Micro)										
LDPE bag WRC-5	E511A	11-Sep-2025	27-Nov-2025	365 days	77 days	✓	27-Nov-2025	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (Wet Weight, Micro)										
LDPE bag EEM-13	E511A	10-Sep-2025	27-Nov-2025	365 days	79 days	✓	27-Nov-2025	365 days	79 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag WQ-14ds	E475	11-Sep-2025	27-Nov-2025	730 days	77 days	✓	28-Nov-2025	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EEM-18	E472	16-Sep-2025	27-Nov-2025	730 days	72 days	✓	28-Nov-2025	730 days	72 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag ATT IDZ	E472	15-Sep-2025	27-Nov-2025	730 days	73 days	✓	28-Nov-2025	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag ACB-1	E472	14-Sep-2025	27-Nov-2025	730 days	74 days	✓	28-Nov-2025	730 days	74 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EEM 17	E472	13-Sep-2025	27-Nov-2025	730 days	75 days	✓	28-Nov-2025	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag ACB-3	E472	12-Sep-2025	27-Nov-2025	730 days	76 days	✓	28-Nov-2025	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag DUP 1	E472	12-Sep-2025	27-Nov-2025	730 days	76 days	✓	28-Nov-2025	730 days	76 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag WRC-5	E472	11-Sep-2025	27-Nov-2025	730 days	77 days	✓	28-Nov-2025	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag EEM-13	E472	10-Sep-2025	27-Nov-2025	730 days	79 days	✓	28-Nov-2025	730 days	79 days	✓
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Biopsy)										
LDPE bag WQ-14ds	E475A	11-Sep-2025	27-Nov-2025	730 days	77 days	✓	28-Nov-2025	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Micro)										
LDPE bag EEM-18	E472A	16-Sep-2025	27-Nov-2025	730 days	72 days	✓	28-Nov-2025	730 days	72 days	✓
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Micro)										
LDPE bag ATT IDZ	E472A	15-Sep-2025	27-Nov-2025	730 days	73 days	✓	28-Nov-2025	730 days	73 days	✓
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Micro)										
LDPE bag ACB-1	E472A	14-Sep-2025	27-Nov-2025	730 days	74 days	✓	28-Nov-2025	730 days	74 days	✓
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Micro)										
LDPE bag EEM 17	E472A	13-Sep-2025	27-Nov-2025	730 days	75 days	✓	28-Nov-2025	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Micro)										
LDPE bag ACB-3	E472A	12-Sep-2025	27-Nov-2025	730 days	76 days	✓	28-Nov-2025	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Micro)										
LDPE bag DUP 1	E472A	12-Sep-2025	27-Nov-2025	730 days	76 days	✓	28-Nov-2025	730 days	76 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Micro)										
LDPE bag WRC-5	E472A	11-Sep-2025	27-Nov-2025	730 days	77 days	✓	28-Nov-2025	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (Wet Weight, Micro)										
LDPE bag EEM-13	E472A	10-Sep-2025	27-Nov-2025	730 days	79 days	✓	28-Nov-2025	730 days	79 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-4 Rep 1	E137	17-Sep-2025	----	----	----		03-Oct-2025	180 days	16 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-4 Rep 2	E137	17-Sep-2025	----	----	----		03-Oct-2025	180 days	16 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-4 Rep 3	E137	17-Sep-2025	----	----	----		03-Oct-2025	180 days	16 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-4 Rep 4	E137	17-Sep-2025	----	----	----		03-Oct-2025	180 days	16 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-4 Rep 5	E137	17-Sep-2025	----	----	----		03-Oct-2025	180 days	16 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-18 Rep 1	E137	16-Sep-2025	----	----	----		03-Oct-2025	180 days	17 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-18 Rep 2	E137	16-Sep-2025	----	----	----		03-Oct-2025	180 days	17 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-18 Rep 3	E137	16-Sep-2025	----	----	----		03-Oct-2025	180 days	17 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-18 Rep 4	E137	16-Sep-2025	----	----	----		03-Oct-2025	180 days	17 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-18 Rep 5	E137	16-Sep-2025	----	----	----		03-Oct-2025	180 days	17 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ATT-IDZ Rep 1	E137	15-Sep-2025	----	----	----		03-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ATT-IDZ Rep 2	E137	15-Sep-2025	----	----	----		03-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ATT-IDZ Rep 3	E137	15-Sep-2025	----	----	----		03-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ATT-IDZ Rep 4	E137	15-Sep-2025	----	----	----		03-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ATT-IDZ Rep 5	E137	15-Sep-2025	----	----	----		03-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-1 Rep 1	E137	14-Sep-2025	----	----	----		03-Oct-2025	180 days	19 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-1 Rep 2	E137	14-Sep-2025	----	----	----		03-Oct-2025	180 days	19 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-1 Rep 3	E137	14-Sep-2025	----	----	----		03-Oct-2025	180 days	19 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-1 Rep 4	E137	14-Sep-2025	----	----	----		03-Oct-2025	180 days	19 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-1 Rep 5	E137	14-Sep-2025	----	----	----		03-Oct-2025	180 days	19 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-17 Rep 1	E137	13-Sep-2025	----	----	----		03-Oct-2025	180 days	20 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-17 Rep 2	E137	13-Sep-2025	----	----	----		03-Oct-2025	180 days	20 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-17 Rep 3	E137	13-Sep-2025	----	----	----		03-Oct-2025	180 days	20 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-17 Rep 4	E137	13-Sep-2025	----	----	----		03-Oct-2025	180 days	20 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-17 Rep 5	E137	13-Sep-2025	----	----	----		03-Oct-2025	180 days	20 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-3 Rep 1	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-3 Rep 2	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-3 Rep 3	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-3 Rep 4	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container ACB-3 Rep 5	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-13- Rep 1	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-13- Rep 2	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-13 Rep 3	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-13 Rep 4	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container EEM-13 Rep 5	E137	12-Sep-2025	----	----	----		03-Oct-2025	180 days	21 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WQ-14ds Rep 1	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WQ-14ds Rep 2	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WQ-14ds Rep 3	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WQ-14ds Rep 4	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WQ-14ds Rep 5	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WRC-5 Rep 1	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WRC-5 Rep 2	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WRC-5 Rep 3	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WRC-5 Rep 4	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Compliant container WRC-5 Rep 5	E137	11-Sep-2025	----	----	----		03-Oct-2025	180 days	22 days	✓
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag WQ-14ds	E144A	11-Sep-2025	----	----	----		27-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag ACB-1	E144-H	14-Sep-2025	----	----	----		27-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag ACB-3	E144-H	12-Sep-2025	----	----	----		27-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag ATT IDZ	E144-H	15-Sep-2025	----	----	----		27-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag DUP 1	E144-H	12-Sep-2025	----	----	----		27-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EEM 17	E144-H	13-Sep-2025	----	----	----		27-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EEM-13	E144-H	10-Sep-2025	----	----	----		27-Nov-2025	----	----	

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag EEM-18	E144-H	16-Sep-2025	----	----	----		27-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag WRC-5	E144-H	11-Sep-2025	----	----	----		27-Nov-2025	----	----	
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 4 Rep 1	E870	17-Sep-2025	01-Oct-2025	28 days	14 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 4 Rep 2	E870	17-Sep-2025	01-Oct-2025	28 days	14 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 4 Rep 3	E870	17-Sep-2025	01-Oct-2025	28 days	14 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 4 Rep 4	E870	17-Sep-2025	01-Oct-2025	28 days	14 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 4 Rep 5	E870	17-Sep-2025	01-Oct-2025	28 days	14 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM 18 Rep 1	E870	16-Sep-2025	01-Oct-2025	28 days	15 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM 18 Rep 2	E870	16-Sep-2025	01-Oct-2025	28 days	15 days	✓	01-Oct-2025	28 days	0 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM 18 Rep 3	E870	16-Sep-2025	01-Oct-2025	28 days	15 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM 18 Rep 4	E870	16-Sep-2025	01-Oct-2025	28 days	15 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM 18 Rep 5	E870	16-Sep-2025	01-Oct-2025	28 days	15 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ATT-IDZ Rep 1	E870	15-Sep-2025	01-Oct-2025	28 days	16 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ATT-IDZ Rep 2	E870	15-Sep-2025	01-Oct-2025	28 days	16 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ATT-IDZ Rep 3	E870	15-Sep-2025	01-Oct-2025	28 days	16 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ATT-IDZ Rep 4	E870	15-Sep-2025	01-Oct-2025	28 days	16 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ATT-IDZ Rep 5	E870	15-Sep-2025	01-Oct-2025	28 days	16 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-1 Rep 1	E870	14-Sep-2025	01-Oct-2025	28 days	17 days	✓	01-Oct-2025	28 days	0 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-1 Rep 2	E870	14-Sep-2025	01-Oct-2025	28 days	17 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-1 Rep 3	E870	14-Sep-2025	01-Oct-2025	28 days	17 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-1 Rep 4	E870	14-Sep-2025	01-Oct-2025	28 days	17 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-1 Rep 5	E870	14-Sep-2025	01-Oct-2025	28 days	17 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-17 Rep 1	E870	13-Sep-2025	01-Oct-2025	28 days	18 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-17 Rep 2	E870	13-Sep-2025	01-Oct-2025	28 days	18 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-17 Rep 3	E870	13-Sep-2025	01-Oct-2025	28 days	18 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-17 Rep 4	E870	13-Sep-2025	01-Oct-2025	28 days	18 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-17 Rep 5	E870	13-Sep-2025	01-Oct-2025	28 days	18 days	✓	01-Oct-2025	28 days	0 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 3 Rep 1	E870	12-Sep-2025	01-Oct-2025	28 days	19 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 3 Rep 2	E870	12-Sep-2025	01-Oct-2025	28 days	19 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 3 Rep 3	E870	12-Sep-2025	01-Oct-2025	28 days	19 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 3 Rep 4	E870	12-Sep-2025	01-Oct-2025	28 days	19 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB 3 Rep 5	E870	12-Sep-2025	01-Oct-2025	28 days	19 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14ds Rep 1	E870	11-Sep-2025	01-Oct-2025	28 days	20 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14ds Rep 2	E870	11-Sep-2025	01-Oct-2025	28 days	20 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14ds Rep 3	E870	11-Sep-2025	01-Oct-2025	28 days	20 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14ds Rep 4	E870	11-Sep-2025	01-Oct-2025	28 days	20 days	✓	01-Oct-2025	28 days	0 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14ds Rep 5	E870	11-Sep-2025	01-Oct-2025	28 days	20 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WRC-5 Rep 2	E870	11-Sep-2025	01-Oct-2025	28 days	20 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WRC-5 Rep 4	E870	11-Sep-2025	01-Oct-2025	28 days	20 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WRC-5 Rep 5	E870	11-Sep-2025	01-Oct-2025	28 days	20 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WRC-5 Rep 1	E870	11-Sep-2025	01-Oct-2025	28 days	21 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WRC-5 Rep 3	E870	11-Sep-2025	01-Oct-2025	28 days	21 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-13 Rep 1	E870	10-Sep-2025	01-Oct-2025	28 days	22 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-13 Rep 2	E870	10-Sep-2025	01-Oct-2025	28 days	22 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-13 Rep 3	E870	10-Sep-2025	01-Oct-2025	28 days	22 days	✓	01-Oct-2025	28 days	0 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-13 Rep 4	E870	10-Sep-2025	01-Oct-2025	28 days	22 days	✓	01-Oct-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube EEM-13 Rep 5	E870	10-Sep-2025	01-Oct-2025	28 days	22 days	✓	01-Oct-2025	28 days	0 days	✓

Legend & Qualifier Definitions

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

Quality Control Parameter Frequency Compliance

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

Matrix: **Biota**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Moisture Content by Gravimetry (Micro)	E144-H	2359621	1	8	12.5	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	2359622	2	8	25.0	5.0	✓
Metals in Biota by CRC ICPMS (Wet Weight, Micro)	E472A	2359623	2	8	25.0	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	2359625	1	8	12.5	5.0	✓
Mercury in Biota by CVAAS (Wet Weight, Micro)	E511A	2359624	1	8	12.5	5.0	✓
Laboratory Control Samples (LCS)							
Ash-free Dry Weight by Gravimetry	E137	2257492	3	54	5.5	5.0	✓
Moisture Content by Gravimetry (Biopsy)	E144A	2359626	1	1	100.0	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	2359621	1	8	12.5	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	2359622	3	8	37.5	10.0	✓
Metals in Biota by CRC ICPMS (Wet Weight, Micro)	E472A	2359623	3	8	37.5	10.0	✓
Metals by CRC ICPMS (DRY units, Biopsy)	E475	2359628	2	1	200.0	10.0	✓
Metals in Biota by CRC ICPMS (Wet Weight, Biopsy)	E475A	2359627	2	1	200.0	10.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	2359625	2	8	25.0	10.0	✓
Mercury in Biota by CVAAS (Wet Weight, Micro)	E511A	2359624	2	8	25.0	10.0	✓
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	2359630	2	1	200.0	10.0	✓
Mercury in Biota by CVAAS (Wet Weight, Biopsy)	E512A	2359629	2	1	200.0	10.0	✓
Chlorophyll-a by Fluorometry	E870	2252446	3	45	6.6	5.0	✓
Method Blanks (MB)							
Ash-free Dry Weight by Gravimetry	E137	2257492	3	54	5.5	5.0	✓
Moisture Content by Gravimetry (Biopsy)	E144A	2359626	1	1	100.0	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	2359621	1	8	12.5	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	2359622	1	8	12.5	5.0	✓
Metals in Biota by CRC ICPMS (Wet Weight, Micro)	E472A	2359623	1	8	12.5	5.0	✓
Metals by CRC ICPMS (DRY units, Biopsy)	E475	2359628	1	1	100.0	5.0	✓
Metals in Biota by CRC ICPMS (Wet Weight, Biopsy)	E475A	2359627	1	1	100.0	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	2359625	1	8	12.5	5.0	✓
Mercury in Biota by CVAAS (Wet Weight, Micro)	E511A	2359624	1	8	12.5	5.0	✓
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	2359630	1	1	100.0	5.0	✓
Mercury in Biota by CVAAS (Wet Weight, Biopsy)	E512A	2359629	1	1	100.0	5.0	✓
Chlorophyll-a by Fluorometry	E870	2252446	3	45	6.6	5.0	✓

Methodology References and Summaries

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

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ash-free Dry Weight by Gravimetry	E137 ALS Environmental - Vancouver	Biota	APHA 10200 I (mod)	"Ash-free dry weight is determined gravimetrically after drying the submitted sample at 105°C. The residue is then ignited at 500°C and the ash rewetted to restore water of hydration to clays and other minerals. The ash weight is determined gravimetrically after bringing the rewetted ash to constant weight at 104°. The ash-free dry weight is the difference between the dry weight and the ash weight.
Moisture Content by Gravimetry (Biopsy)	E144A ALS Environmental - Vancouver	Biota	ASTM Method D4638-16 (mod)	Moisture is measured gravimetrically by drying the sample at <60°C for a minimum of 3 days to constant weight. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Moisture Content by Gravimetry (Micro)	E144-H ALS Environmental - Vancouver	Biota	ASTM Method D4638-16 (mod)	Moisture is measured gravimetrically by drying the sample at <60°C for a minimum of 3 days to constant weight. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals in Biota by CRC ICPMS (Wet Weight, Micro)	E472A ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Tissue samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals by CRC ICPMS (DRY units, Biopsy)	E475 ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Metals in Biota by CRC ICPMS (Wet Weight, Biopsy)	E475A ALS Environmental - Vancouver	Biota	EPA 200.3/6020B (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by Collision/Reaction Cell ICPMS. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury in Biota by CVAAS (DRY units, Micro)	E511 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (Wet Weight, Micro)	E511A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Mercury in Biota by CVAAS (Wet Weight, Biopsy)	E512A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Analysis is by CVAAS.
Chlorophyll-a by Fluorometry	E870 ALS Environmental - Vancouver	Biota	EPA 445.0 (mod)	Chlorophyll-a is determined by solvent extraction followed with analysis by fluorometry using the non-acidification procedure.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion (Micro)	EP472 ALS Environmental - Vancouver	Biota	EPA 200.3	This method, designed for small sample amounts, uses a heated strong acid digestion with HNO3, HCl, and H2O2 and is intended to provide a conservative estimate of bio-available metals.
Metals and Mercury Biota Digestion (Biopsy)	EP475 ALS Environmental - Vancouver	Biota	EPA 200.3/200.8 (mod)	Samples are digested with nitric acid, hydrochloric acid, and hydrogen peroxide. Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.
Chlorophyll-a Extraction	EP870 ALS Environmental - Vancouver	Biota	EPA 445.0 (mod)	Chlorophyll-a solvent extraction.

QUALITY CONTROL REPORT

Work Order	: **VA25C4941**	Page	: 1 of 18
Client	: Hatfield Consultants LLP	Laboratory	: ALS Environmental - Vancouver
Contact	: Benjamin Beall	Account Manager	: Brent Mack
Address	: 200 - 850 Harbourside Drive North Vancouver BC Canada V7P 0A3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 604 926 3261	Telephone	: 778-370-3279
Project	: KEM12954	Date Samples Received	: 19-Sep-2025 22:00
PO	: ----	Date Analysis Commenced	: 01-Oct-2025
C-O-C number	: ----	Issue Date	: 04-Dec-2025 07:34
Sampler	: Hatfield		
Site	: 2025 Kemess FAEMP Program		
Quote number	: VA25-HATF100-011		
No. of samples received	: 100		
No. of samples analysed	: 99		

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

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

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

Signatories	*Position*	*Laboratory Department*
Bita Emamgholi	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Miles Gropen	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **Biota**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 2359621)											
VA25C4941-091	EEM-13	Moisture	----	E144-H	2.0	%	73.9	75.1	1.63%	20%	----
Metals (QC Lot: 2359622)											
VA25C4941-091	EEM-13	Calcium	7440-70-2	E472	20	mg/kg	9030	6960	25.8%	60%	----
VA25C4941-091	EEM-13	Aluminum	7429-90-5	E472	14.4	mg/kg	19100	17400	9.52%	40%	----
		Antimony	7440-36-0	E472	0.029	mg/kg	<0.029	<0.029	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.087	mg/kg	5.60	5.02	10.8%	40%	----
		Barium	7440-39-3	E472	0.144	mg/kg	210	193	8.71%	40%	----
		Beryllium	7440-41-7	E472	0.029	mg/kg	0.441	0.393	11.5%	40%	----
		Bismuth	7440-69-9	E472	0.029	mg/kg	0.077	0.077	0.0008	Diff <2x LOR	----
		Boron	7440-42-8	E472	2.9	mg/kg	<2.9	<2.9	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.029	mg/kg	0.330	0.278	16.9%	40%	----
		Cesium	7440-46-2	E472	0.0144	mg/kg	0.514	0.458	11.4%	40%	----
		Chromium	7440-47-3	E472	0.58	mg/kg	36.8	31.3	16.1%	40%	----
		Cobalt	7440-48-4	E472	0.058	mg/kg	16.5	14.9	10.1%	40%	----
		Copper	7440-50-8	E472	0.58	mg/kg	48.6	43.3	11.5%	40%	----
		Iron	7439-89-6	E472	14.4	mg/kg	30600	27800	9.51%	40%	----
		Lead	7439-92-1	E472	0.144	mg/kg	4.54	4.09	10.5%	40%	----
		Lithium	7439-93-2	E472	1.44	mg/kg	11.3	10.3	9.71%	40%	----
		Magnesium	7439-95-4	E472	5.8	mg/kg	8940	8000	11.1%	40%	----
		Manganese	7439-96-5	E472	0.144	mg/kg	2630	2420	8.28%	40%	----
		Molybdenum	7439-98-7	E472	0.115	mg/kg	0.729	0.655	10.7%	40%	----
		Nickel	7440-02-0	E472	0.58	mg/kg	23.6	22.4	4.97%	40%	----
		Phosphorus	7723-14-0	E472	29	mg/kg	961	865	10.5%	40%	----
		Potassium	7440-09-7	E472	58	mg/kg	1880	1780	5.52%	40%	----
		Rubidium	7440-17-7	E472	0.144	mg/kg	7.11	6.72	5.51%	40%	----
		Selenium	7782-49-2	E472	0.29	mg/kg	0.85	0.81	0.04	Diff <2x LOR	----
		Sodium	7440-23-5	E472	58	mg/kg	127	112	15	Diff <2x LOR	----
		Strontium	7440-24-6	E472	0.29	mg/kg	66.2	62.1	6.37%	60%	----
		Tellurium	13494-80-9	E472	0.058	mg/kg	<0.058	<0.058	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0058	mg/kg	0.0496	0.0451	9.46%	40%	----

Sub-Matrix: **Biota**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Metals (QC Lot: 2359622) - continued											
VA25C4941-091	EEM-13	Tin	7440-31-5	E472	0.29	mg/kg	<0.29	<0.29	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0058	mg/kg	0.513	0.478	7.14%	40%	----
		Vanadium	7440-62-2	E472	0.29	mg/kg	69.8	62.7	10.8%	40%	----
		Zinc	7440-66-6	E472	2.9	mg/kg	63.1	58.1	8.19%	40%	----
		Zirconium	7440-67-7	E472	0.58	mg/kg	8.99	8.09	10.5%	40%	----
Metals (QC Lot: 2359623)											
VA25C4941-091	EEM-13	Calcium	7440-70-2	E472A	4.0	mg/kg wwt	2360	1820	25.8%	60%	----
VA25C4941-091	EEM-13	Aluminum	7429-90-5	E472A	3.8	mg/kg wwt	4990	4540	9.52%	40%	----
		Antimony	7440-36-0	E472A	0.0075	mg/kg wwt	<0.0075	<0.0075	0.000006	Diff <2x LOR	----
		Arsenic	7440-38-2	E472A	0.0226	mg/kg wwt	1.46	1.31	10.8%	40%	----
		Barium	7440-39-3	E472A	0.038	mg/kg wwt	54.9	50.3	8.71%	40%	----
		Beryllium	7440-41-7	E472A	0.0075	mg/kg wwt	0.115	0.102	11.5%	40%	----
		Bismuth	7440-69-9	E472A	0.0075	mg/kg wwt	0.0200	0.0202	0.0002	Diff <2x LOR	----
		Boron	7440-42-8	E472A	0.75	mg/kg wwt	<0.75	<0.75	0.0006	Diff <2x LOR	----
		Cadmium	7440-43-9	E472A	0.0075	mg/kg wwt	0.0861	0.0726	16.9%	40%	----
		Cesium	7440-46-2	E472A	0.0038	mg/kg wwt	0.134	0.120	11.4%	40%	----
		Chromium	7440-47-3	E472A	0.151	mg/kg wwt	9.61	8.17	16.1%	40%	----
		Cobalt	7440-48-4	E472A	0.0151	mg/kg wwt	4.31	3.89	10.1%	40%	----
		Copper	7440-50-8	E472A	0.151	mg/kg wwt	12.7	11.3	11.5%	40%	----
		Iron	7439-89-6	E472A	3.8	mg/kg wwt	7980	7260	9.51%	40%	----
		Lead	7439-92-1	E472A	0.038	mg/kg wwt	1.18	1.07	10.5%	40%	----
		Lithium	7439-93-2	E472A	0.38	mg/kg wwt	2.95	2.68	9.71%	40%	----
		Magnesium	7439-95-4	E472A	1.51	mg/kg wwt	2330	2090	11.1%	40%	----
		Manganese	7439-96-5	E472A	0.038	mg/kg wwt	687	633	8.28%	40%	----
		Molybdenum	7439-98-7	E472A	0.0301	mg/kg wwt	0.190	0.171	10.7%	40%	----
		Nickel	7440-02-0	E472A	0.151	mg/kg wwt	6.15	5.85	4.97%	40%	----
		Phosphorus	7723-14-0	E472A	7.5	mg/kg wwt	251	226	10.5%	40%	----
		Potassium	7440-09-7	E472A	15.1	mg/kg wwt	490	464	5.52%	40%	----
		Rubidium	7440-17-7	E472A	0.038	mg/kg wwt	1.85	1.75	5.51%	40%	----
		Selenium	7782-49-2	E472A	0.075	mg/kg wwt	0.222	0.211	0.011	Diff <2x LOR	----
		Sodium	7440-23-5	E472A	15.1	mg/kg wwt	33.0	29.1	3.9	Diff <2x LOR	----
		Strontium	7440-24-6	E472A	0.075	mg/kg wwt	17.3	16.2	6.37%	60%	----
		Tellurium	13494-80-9	E472A	0.0151	mg/kg wwt	<0.0151	<0.0151	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472A	0.00151	mg/kg wwt	0.0129	0.0118	9.46%	40%	----

Sub-Matrix: **Biota**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Metals (QC Lot: 2359623) - continued											
VA25C4941-091	EEM-13	Tin	7440-31-5	E472A	0.075	mg/kg wwt	<0.075	<0.075	0.00006	Diff <2x LOR	----
		Uranium	7440-61-1	E472A	0.00151	mg/kg wwt	0.134	0.125	7.14%	40%	----
		Vanadium	7440-62-2	E472A	0.075	mg/kg wwt	18.2	16.3	10.8%	40%	----
		Zinc	7440-66-6	E472A	0.75	mg/kg wwt	16.5	15.2	8.19%	40%	----
		Zirconium	7440-67-7	E472A	0.151	mg/kg wwt	2.35	2.11	10.5%	40%	----
Metals (QC Lot: 2359624)											
VA25C4941-091	EEM-13	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0083	0.0077	7.63%	40%	----
Metals (QC Lot: 2359625)											
VA25C4941-091	EEM-13	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0319	0.0295	7.63%	40%	----

Method Blank (MB) Report

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

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2257492)						
Ash free dry weight	----	E137	0.001	g/sample	<0.0010	----
Ash weight	----	E137	0.001	g/sample	<0.0010	----
Weight, dry	----	E137	0.001	g/sample	<0.0010	----
Physical Tests (QCLot: 2257493)						
Ash free dry weight	----	E137	0.001	g/sample	<0.0010	----
Ash weight	----	E137	0.001	g/sample	<0.0010	----
Weight, dry	----	E137	0.001	g/sample	<0.0010	----
Physical Tests (QCLot: 2257494)						
Ash free dry weight	----	E137	0.001	g/sample	<0.0010	----
Ash weight	----	E137	0.001	g/sample	<0.0010	----
Weight, dry	----	E137	0.001	g/sample	<0.0010	----
Physical Tests (QCLot: 2359621)						
Moisture	----	E144-H	2	%	<2.0	----
Physical Tests (QCLot: 2359626)						
Moisture	----	E144A	2	%	<2.0	----
Metals (QCLot: 2359622)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	----
Antimony	7440-36-0	E472	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E472	0.03	mg/kg	<0.030	----
Barium	7440-39-3	E472	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E472	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E472	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E472	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E472	0.01	mg/kg	<0.010	----
Calcium	7440-70-2	E472	20	mg/kg	<20	----
Cesium	7440-46-2	E472	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E472	0.2	mg/kg	<0.20	----
Cobalt	7440-48-4	E472	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E472	0.2	mg/kg	<0.20	----
Iron	7439-89-6	E472	5	mg/kg	<5.0	----
Lead	7439-92-1	E472	0.05	mg/kg	<0.050	----
Lithium	7439-93-2	E472	0.5	mg/kg	<0.50	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2359622) - continued						
Magnesium	7439-95-4	E472	2	mg/kg	<2.0	----
Manganese	7439-96-5	E472	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	<0.040	----
Nickel	7440-02-0	E472	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E472	10	mg/kg	<10	----
Potassium	7440-09-7	E472	20	mg/kg	<20	----
Rubidium	7440-17-7	E472	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E472	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E472	20	mg/kg	<20	----
Strontium	7440-24-6	E472	0.1	mg/kg	<0.10	----
Tellurium	13494-80-9	E472	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E472	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E472	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E472	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E472	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E472	1	mg/kg	<1.0	----
Zirconium	7440-67-7	E472	0.2	mg/kg	<0.20	----
Metals (QCLot: 2359623)						
Aluminum	7429-90-5	E472A	1	mg/kg wwt	<1.0	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E472A	0.006	mg/kg wwt	<0.0060	----
Barium	7440-39-3	E472A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	<0.0020	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	<0.040	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	<0.040	----
Iron	7439-89-6	E472A	1	mg/kg wwt	<1.0	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	<0.010	----
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	<0.40	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2359623) - continued						
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	<0.0080	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	<0.020	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	<0.020	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E472A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E472A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	<0.20	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 2359624)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 2359625)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 2359627)						
Aluminum	7429-90-5	E475A	1	mg/kg wwt	<1.0	----
Antimony	7440-36-0	E475A	0.004	mg/kg wwt	<0.0040	----
Arsenic	7440-38-2	E475A	0.01	mg/kg wwt	<0.010	----
Barium	7440-39-3	E475A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E475A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E475A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E475A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E475A	0.002	mg/kg wwt	<0.0020	----
Calcium	7440-70-2	E475A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E475A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E475A	0.04	mg/kg wwt	<0.040	----
Cobalt	7440-48-4	E475A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E475A	0.04	mg/kg wwt	<0.040	----
Iron	7439-89-6	E475A	1	mg/kg wwt	<1.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2359627) - continued						
Lead	7439-92-1	E475A	0.01	mg/kg wwt	<0.010	----
Lithium	7439-93-2	E475A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E475A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E475A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E475A	0.008	mg/kg wwt	<0.0080	----
Nickel	7440-02-0	E475A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E475A	4	mg/kg wwt	<4.0	----
Potassium	7440-09-7	E475A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E475A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E475A	0.02	mg/kg wwt	<0.020	----
Sodium	7440-23-5	E475A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E475A	0.02	mg/kg wwt	<0.020	----
Tellurium	13494-80-9	E475A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E475A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E475A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E475A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E475A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E475A	0.2	mg/kg wwt	<0.20	----
Zirconium	7440-67-7	E475A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 2359628)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	----
Antimony	7440-36-0	E475	0.02	mg/kg	<0.020	----
Arsenic	7440-38-2	E475	0.05	mg/kg	<0.050	----
Barium	7440-39-3	E475	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E475	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E475	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E475	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E475	0.01	mg/kg	<0.010	----
Calcium	7440-70-2	E475	20	mg/kg	<20	----
Cesium	7440-46-2	E475	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E475	0.2	mg/kg	<0.20	----
Cobalt	7440-48-4	E475	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E475	0.2	mg/kg	<0.20	----
Iron	7439-89-6	E475	5	mg/kg	<5.0	----
Lead	7439-92-1	E475	0.05	mg/kg	<0.050	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2359628) - continued						
Lithium	7439-93-2	E475	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E475	2	mg/kg	<2.0	----
Manganese	7439-96-5	E475	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	<0.040	----
Nickel	7440-02-0	E475	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E475	20	mg/kg	<20	----
Potassium	7440-09-7	E475	20	mg/kg	<20	----
Rubidium	7440-17-7	E475	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E475	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E475	20	mg/kg	<20	----
Strontium	7440-24-6	E475	0.1	mg/kg	<0.10	----
Tellurium	13494-80-9	E475	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E475	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E475	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E475	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E475	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E475	1	mg/kg	<1.0	----
Zirconium	7440-67-7	E475	0.2	mg/kg	<0.20	----
Metals (QCLot: 2359629)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	----
Metals (QCLot: 2359630)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	----
Plant Pigments (QCLot: 2252446)						
Chlorophyll a	479-61-8	E870	0.01	µg	<0.010	----
Plant Pigments (QCLot: 2252447)						
Chlorophyll a	479-61-8	E870	0.01	µg	<0.010	----
Plant Pigments (QCLot: 2252448)						
Chlorophyll a	479-61-8	E870	0.01	µg	<0.010	----

Laboratory Control Sample (LCS) Report

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

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2257492)									
Ash free dry weight	----	E137	0.001	g/sample	0.04 g/sample	86.4	70.0	130	----
Ash weight	----	E137	0.001	g/sample	0.074 g/sample	103	70.0	130	----
Weight, dry	----	E137	0.001	g/sample	0.115 g/sample	97.0	70.0	130	----
Physical Tests (QCLot: 2257493)									
Ash free dry weight	----	E137	0.001	g/sample	0.04 g/sample	87.9	70.0	130	----
Ash weight	----	E137	0.001	g/sample	0.074 g/sample	104	70.0	130	----
Weight, dry	----	E137	0.001	g/sample	0.115 g/sample	98.3	70.0	130	----
Physical Tests (QCLot: 2257494)									
Ash free dry weight	----	E137	0.001	g/sample	0.04 g/sample	85.2	70.0	130	----
Ash weight	----	E137	0.001	g/sample	0.074 g/sample	105	70.0	130	----
Weight, dry	----	E137	0.001	g/sample	0.115 g/sample	97.9	70.0	130	----
Physical Tests (QCLot: 2359621)									
Moisture	----	E144-H	2	%	100 %	100.0	90.0	110	----
Physical Tests (QCLot: 2359626)									
Moisture	----	E144A	2	%	100 %	100	90.0	110	----
Metals (QCLot: 2359622)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	106	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	103	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	105	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	103	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	104	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	102	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	101	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	105	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	110	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	107	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	103	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	101	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	106	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2359622) - continued									
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	108	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	111	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	111	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	103	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	109	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	107	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	109	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	97.8	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	113	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	108	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	100.0	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	103	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	105	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	108	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	109	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	99.2	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 2359623)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	106	80.0	120	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Arsenic	7440-38-2	E472A	0.006	mg/kg wwt	10 mg/kg wwt	105	80.0	120	----
Barium	7440-39-3	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	105	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	110	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Iron	7439-89-6	E472A	1	mg/kg wwt	10 mg/kg wwt	101	80.0	120	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	111	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2359623) - continued									
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	111	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	103	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	109	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	109	80.0	120	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	97.8	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	113	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	100.0	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Tin	7440-31-5	E472A	0.02	mg/kg wwt	5 mg/kg wwt	105	80.0	120	----
Uranium	7440-61-1	E472A	0.0004	mg/kg wwt	0.05 mg/kg wwt	108	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	109	80.0	120	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	5 mg/kg wwt	99.2	80.0	120	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Metals (QCLot: 2359624)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	94.5	80.0	120	----
Metals (QCLot: 2359625)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	94.5	80.0	120	----
Metals (QCLot: 2359627)									
Aluminum	7429-90-5	E475A	1	mg/kg wwt	50 mg/kg wwt	104	80.0	120	----
Antimony	7440-36-0	E475A	0.004	mg/kg wwt	25 mg/kg wwt	98.6	80.0	120	----
Arsenic	7440-38-2	E475A	0.01	mg/kg wwt	25 mg/kg wwt	103	80.0	120	----
Barium	7440-39-3	E475A	0.01	mg/kg wwt	6.25 mg/kg wwt	101	80.0	120	----
Beryllium	7440-41-7	E475A	0.002	mg/kg wwt	2.5 mg/kg wwt	97.1	80.0	120	----
Bismuth	7440-69-9	E475A	0.002	mg/kg wwt	25 mg/kg wwt	99.0	80.0	120	----
Boron	7440-42-8	E475A	0.2	mg/kg wwt	25 mg/kg wwt	92.6	80.0	120	----
Cadmium	7440-43-9	E475A	0.002	mg/kg wwt	2.5 mg/kg wwt	95.7	80.0	120	----
Calcium	7440-70-2	E475A	4	mg/kg wwt	1250 mg/kg wwt	103	80.0	120	----
Cesium	7440-46-2	E475A	0.001	mg/kg wwt	1.25 mg/kg wwt	102	80.0	120	----
Chromium	7440-47-3	E475A	0.04	mg/kg wwt	6.25 mg/kg wwt	101	80.0	120	----
Cobalt	7440-48-4	E475A	0.004	mg/kg wwt	6.25 mg/kg wwt	99.0	80.0	120	----
Copper	7440-50-8	E475A	0.04	mg/kg wwt	6.25 mg/kg wwt	97.6	80.0	120	----
Iron	7439-89-6	E475A	1	mg/kg wwt	25 mg/kg wwt	96.8	80.0	120	----
Lead	7439-92-1	E475A	0.01	mg/kg wwt	12.5 mg/kg wwt	100	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2359627) - continued									
Lithium	7439-93-2	E475A	0.1	mg/kg wwt	6.25 mg/kg wwt	102	80.0	120	----
Magnesium	7439-95-4	E475A	0.4	mg/kg wwt	1250 mg/kg wwt	107	80.0	120	----
Manganese	7439-96-5	E475A	0.01	mg/kg wwt	6.25 mg/kg wwt	103	80.0	120	----
Molybdenum	7439-98-7	E475A	0.008	mg/kg wwt	6.25 mg/kg wwt	108	80.0	120	----
Nickel	7440-02-0	E475A	0.04	mg/kg wwt	12.5 mg/kg wwt	98.0	80.0	120	----
Phosphorus	7723-14-0	E475A	4	mg/kg wwt	250 mg/kg wwt	107	80.0	120	----
Potassium	7440-09-7	E475A	4	mg/kg wwt	1250 mg/kg wwt	105	80.0	120	----
Rubidium	7440-17-7	E475A	0.01	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Selenium	7782-49-2	E475A	0.02	mg/kg wwt	25 mg/kg wwt	97.6	80.0	120	----
Sodium	7440-23-5	E475A	4	mg/kg wwt	1250 mg/kg wwt	105	80.0	120	----
Strontium	7440-24-6	E475A	0.02	mg/kg wwt	6.25 mg/kg wwt	101	80.0	120	----
Tellurium	13494-80-9	E475A	0.004	mg/kg wwt	2.5 mg/kg wwt	97.6	80.0	120	----
Thallium	7440-28-0	E475A	0.0004	mg/kg wwt	25 mg/kg wwt	99.6	80.0	120	----
Tin	7440-31-5	E475A	0.02	mg/kg wwt	12.5 mg/kg wwt	102	80.0	120	----
Uranium	7440-61-1	E475A	0.0004	mg/kg wwt	0.125 mg/kg wwt	102	80.0	120	----
Vanadium	7440-62-2	E475A	0.02	mg/kg wwt	12.5 mg/kg wwt	103	80.0	120	----
Zinc	7440-66-6	E475A	0.2	mg/kg wwt	12.5 mg/kg wwt	94.9	80.0	120	----
Zirconium	7440-67-7	E475A	0.04	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Metals (QCLot: 2359628)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	104	80.0	120	----
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	98.6	80.0	120	----
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	103	80.0	120	----
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	101	80.0	120	----
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	97.1	80.0	120	----
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	99.0	80.0	120	----
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	92.6	80.0	120	----
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	95.7	80.0	120	----
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	103	80.0	120	----
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	102	80.0	120	----
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	101	80.0	120	----
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	99.0	80.0	120	----
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	97.6	80.0	120	----
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	96.8	80.0	120	----
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	100	80.0	120	----
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	102	80.0	120	----
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	107	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2359628) - continued									
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	103	80.0	120	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	108	80.0	120	----
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	98.0	80.0	120	----
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	107	80.0	120	----
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	105	80.0	120	----
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	97.6	80.0	120	----
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	105	80.0	120	----
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	101	80.0	120	----
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	97.6	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	99.6	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	102	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	102	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	103	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	94.9	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	103	80.0	120	----
Metals (QCLot: 2359629)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	84.4	80.0	120	----
Metals (QCLot: 2359630)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	84.4	80.0	120	----
Plant Pigments (QCLot: 2252446)									
Chlorophyll a	479-61-8	E870	0.01	µg	1 µg	97.0	80.0	120	----
Plant Pigments (QCLot: 2252447)									
Chlorophyll a	479-61-8	E870	0.01	µg	1 µg	96.7	80.0	120	----
Plant Pigments (QCLot: 2252448)									
Chlorophyll a	479-61-8	E870	0.01	µg	1 µg	95.6	80.0	120	----

Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Metals (QCLot: 2359622)									
QC-2359622-003	RM	Aluminum	7429-90-5	E472	147 mg/kg	102	70.0	130	----
QC-2359622-003	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	102	70.0	130	----
QC-2359622-003	RM	Barium	7440-39-3	E472	0.352 mg/kg	113	70.0	130	----
QC-2359622-003	RM	Boron	7440-42-8	E472	3.47 mg/kg	96.2	70.0	130	----
QC-2359622-003	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	99.2	70.0	130	----
QC-2359622-003	RM	Calcium	7440-70-2	E472	2010 mg/kg	88.0	70.0	130	----
QC-2359622-003	RM	Cesium	7440-46-2	E472	0.089 mg/kg	101	70.0	130	----
QC-2359622-003	RM	Copper	7440-50-8	E472	3.3 mg/kg	102	70.0	130	----
QC-2359622-003	RM	Iron	7439-89-6	E472	102 mg/kg	102	70.0	130	----
QC-2359622-003	RM	Lead	7439-92-1	E472	0.058 mg/kg	106	15.0	185	----
QC-2359622-003	RM	Magnesium	7439-95-4	E472	899 mg/kg	112	70.0	130	----
QC-2359622-003	RM	Manganese	7439-96-5	E472	0.948 mg/kg	105	70.0	130	----
QC-2359622-003	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	109	70.0	130	----
QC-2359622-003	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	112	70.0	130	----
QC-2359622-003	RM	Potassium	7440-09-7	E472	11600 mg/kg	110	70.0	130	----
QC-2359622-003	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	108	70.0	130	----
QC-2359622-003	RM	Selenium	7782-49-2	E472	2.48 mg/kg	106	70.0	130	----
QC-2359622-003	RM	Sodium	7440-23-5	E472	9620 mg/kg	110	70.0	130	----
QC-2359622-003	RM	Strontium	7440-24-6	E472	10.6 mg/kg	102	70.0	130	----
QC-2359622-003	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	103	70.0	130	----
QC-2359622-003	RM	Zinc	7440-66-6	E472	28.7 mg/kg	105	70.0	130	----
Metals (QCLot: 2359623)									
QC-2359623-003	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	102	70.0	130	----
QC-2359623-003	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	102	70.0	130	----
QC-2359623-003	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	113	70.0	130	----
QC-2359623-003	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	96.2	70.0	130	----
QC-2359623-003	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	99.2	70.0	130	----
QC-2359623-003	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	88.0	70.0	130	----
QC-2359623-003	RM	Cesium	7440-46-2	E472A	0.089 mg/kg wwt	101	70.0	130	----
QC-2359623-003	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	102	70.0	130	----
QC-2359623-003	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	102	70.0	130	----
QC-2359623-003	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	106	15.0	185	----
QC-2359623-003	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	112	70.0	130	----

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%): RM	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Metals (QCLot: 2359623) - continued									
QC-2359623-003	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	105	70.0	130	----
QC-2359623-003	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	109	70.0	130	----
QC-2359623-003	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	112	70.0	130	----
QC-2359623-003	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	110	70.0	130	----
QC-2359623-003	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	108	70.0	130	----
QC-2359623-003	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	106	70.0	130	----
QC-2359623-003	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	110	70.0	130	----
QC-2359623-003	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	102	70.0	130	----
QC-2359623-003	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	103	70.0	130	----
QC-2359623-003	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	105	70.0	130	----
Metals (QCLot: 2359624)									
QC-2359624-003	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	94.6	70.0	130	----
Metals (QCLot: 2359625)									
QC-2359625-003	RM	Mercury	7439-97-6	E511	0.281 mg/kg	94.6	70.0	130	----
Metals (QCLot: 2359627)									
QC-2359627-003	RM	Aluminum	7429-90-5	E475A	147 mg/kg wwt	105	70.0	130	----
QC-2359627-003	RM	Arsenic	7440-38-2	E475A	14.5 mg/kg wwt	97.8	70.0	130	----
QC-2359627-003	RM	Barium	7440-39-3	E475A	0.352 mg/kg wwt	108	70.0	130	----
QC-2359627-003	RM	Boron	7440-42-8	E475A	3.47 mg/kg wwt	92.9	70.0	130	----
QC-2359627-003	RM	Cadmium	7440-43-9	E475A	0.153 mg/kg wwt	96.3	70.0	130	----
QC-2359627-003	RM	Calcium	7440-70-2	E475A	2010 mg/kg wwt	97.8	70.0	130	----
QC-2359627-003	RM	Cesium	7440-46-2	E475A	0.089 mg/kg wwt	99.7	70.0	130	----
QC-2359627-003	RM	Copper	7440-50-8	E475A	3.3 mg/kg wwt	99.1	70.0	130	----
QC-2359627-003	RM	Iron	7439-89-6	E475A	102 mg/kg wwt	100	70.0	130	----
QC-2359627-003	RM	Lead	7439-92-1	E475A	0.058 mg/kg wwt	102	15.0	185	----
QC-2359627-003	RM	Magnesium	7439-95-4	E475A	899 mg/kg wwt	107	70.0	130	----
QC-2359627-003	RM	Manganese	7439-96-5	E475A	0.948 mg/kg wwt	104	70.0	130	----
QC-2359627-003	RM	Molybdenum	7439-98-7	E475A	0.134 mg/kg wwt	102	70.0	130	----
QC-2359627-003	RM	Phosphorus	7723-14-0	E475A	6700 mg/kg wwt	102	70.0	130	----
QC-2359627-003	RM	Potassium	7440-09-7	E475A	11600 mg/kg wwt	107	70.0	130	----
QC-2359627-003	RM	Rubidium	7440-17-7	E475A	2.53 mg/kg wwt	106	70.0	130	----
QC-2359627-003	RM	Selenium	7782-49-2	E475A	2.48 mg/kg wwt	106	70.0	130	----
QC-2359627-003	RM	Sodium	7440-23-5	E475A	9620 mg/kg wwt	106	70.0	130	----
QC-2359627-003	RM	Strontium	7440-24-6	E475A	10.6 mg/kg wwt	96.3	70.0	130	----
QC-2359627-003	RM	Vanadium	7440-62-2	E475A	0.269 mg/kg wwt	103	70.0	130	----
QC-2359627-003	RM	Zinc	7440-66-6	E475A	28.7 mg/kg wwt	103	70.0	130	----
Metals (QCLot: 2359628)									

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 2359628) - continued									
QC-2359628-003	RM	Aluminum	7429-90-5	E475	147 mg/kg	105	70.0	130	----
QC-2359628-003	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	97.8	70.0	130	----
QC-2359628-003	RM	Barium	7440-39-3	E475	0.352 mg/kg	108	70.0	130	----
QC-2359628-003	RM	Boron	7440-42-8	E475	3.47 mg/kg	92.9	70.0	130	----
QC-2359628-003	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	96.3	70.0	130	----
QC-2359628-003	RM	Calcium	7440-70-2	E475	2010 mg/kg	97.8	70.0	130	----
QC-2359628-003	RM	Cesium	7440-46-2	E475	0.089 mg/kg	99.7	70.0	130	----
QC-2359628-003	RM	Copper	7440-50-8	E475	3.3 mg/kg	99.1	70.0	130	----
QC-2359628-003	RM	Iron	7439-89-6	E475	102 mg/kg	100	70.0	130	----
QC-2359628-003	RM	Lead	7439-92-1	E475	0.058 mg/kg	102	15.0	185	----
QC-2359628-003	RM	Magnesium	7439-95-4	E475	899 mg/kg	107	70.0	130	----
QC-2359628-003	RM	Manganese	7439-96-5	E475	0.948 mg/kg	104	70.0	130	----
QC-2359628-003	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	102	70.0	130	----
QC-2359628-003	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	102	70.0	130	----
QC-2359628-003	RM	Potassium	7440-09-7	E475	11600 mg/kg	107	70.0	130	----
QC-2359628-003	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	106	70.0	130	----
QC-2359628-003	RM	Selenium	7782-49-2	E475	2.48 mg/kg	106	70.0	130	----
QC-2359628-003	RM	Sodium	7440-23-5	E475	9620 mg/kg	106	70.0	130	----
QC-2359628-003	RM	Strontium	7440-24-6	E475	10.6 mg/kg	96.3	70.0	130	----
QC-2359628-003	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	103	70.0	130	----
QC-2359628-003	RM	Zinc	7440-66-6	E475	28.7 mg/kg	103	70.0	130	----
Metals (QCLot: 2359629)									
QC-2359629-003	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	88.4	70.0	130	----
Metals (QCLot: 2359630)									
QC-2359630-003	RM	Mercury	7439-97-6	E512	0.281 mg/kg	88.4	70.0	130	----

COC Number: 20 -

Page 1 of 9

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Canada Toll Free: 1 800 668 9878

Environmental Division Vancouver
Work Order Reference
VA25C4941

Telephone : +1 604 253 4188

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Trac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	bbeall@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com
Email 3	KemessEnviro@centerragold.com

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounting-canada@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested
☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge mini
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge min
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge min
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge mini
Same day [E2] if received by 10am M-S - 200% rush surcharg
☐ Additional fees may apply to rush requests on weekends, statut and non-routine tests
Date and Time Required for all E&P TATs:
For all tests with rush TATs requested, please co

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA25-HATF100-011	AFE/Cost Center:	PO#
Job #:	KEM12954	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only): (4941)

ALS Contact: Brent Mack Sampler: Hatfield

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Analysis Req: Indicate Filtered (F), Preserved (P) or Filtered and	SAMPLES ON HOLD	EXTENDED STORAGE REQUIR	SUSPECTED HAZARD (see not
					AFDW				
1	WRC-S REP 1	11-09-25	1210	~~Tissue~~ AFDW	1	X			
2	WRC-S Rep 2	11-09-25	1215	~~Tissue~~ AFDW	1				
3	WRC-S Rep3	11-09-25	1222	~~Tissue~~ AFDW	1				
4	WRC-S Rep4	11-09-25	1231	~~Tissue~~	1				
5	WRC-S Rep 5	11-09-25	1240	~~Tissue~~	1				
6	WQ-14DS Rep 1	11-09-25	1500	~~Tissue~~	1				
7	WQ-14DS Rep2	11-09-25	1509	~~Tissue~~	1				
8	WQ-14DS Rep3	11-09-25	1514	~~Tissue~~	1				
9	WQ-14DS Rep4	11-09-25	1532	~~Tissue~~	1				
10	WQ-14DS Rep5	11-09-25	1538	Tissue	1				
11	EEM-13 - Rep1	12-Sep-25	0828	~~Tissue~~	1				
12	EEM-13 - Rep2	12-Sep-25	0828	AFDW ~~Tissue~~	1	X			

PG&E Shipping & Receiving
__ Call Out __ Expedite
__ Priority
2 # of Coolers ✓ Air
__ # of Carboys __ Ground

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	attn: Mr Brent Mack
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
8.1	6 5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: MDAVIES	Date: 18-09-25	Time: 1400	Received by: TD	Date: 09/19/2025	Time: 830	Received by: RJ	Date: Sep-19	Time: 22:10

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

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Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Hatfield Consultants	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	~~Adrienne Trac~~ Ben Beall	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	6043302441	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	200 - 850 Harbourside Drive	Email 1 or Fax bbeall@hatfieldgroup.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	North Vancouver, BC	Email 2 atrac@hatfieldgroup.com	Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	V7P 0A3	Email 3 KemessEnviro@centerragold.com	☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests
Invoice To	Same as Report To ☑ YES ☐ NO	**Invoice Recipients**	**Date and Time Required for all E&P TATs:** dd-mmm-yy hh:mm am/pm
	Copy of Invoice with Report ☑ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.
Company:		Email 1 or Fax accounting-canada@hatfieldgroup.com	
Contact:		Email 2 atrac@hatfieldgroup.com	

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA25 - HATF100 - 011	AFE/Cost Center:	PO#
Job #:	KEM12954	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only):	ALS Contact: Brent Mack	Sampler: Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	AFDW	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
25	EEM-17 Rep 5	13 Sep 25	1105	~~AFDW Tissue~~	1	X			
26	ACB-1 Rep1	14 sep 25	1428	~~Tissue~~	1				
27	ACB-1 Rep2	14 sep 25	1435	~~Tissue~~	1				
28	ACB-1 Rep3	14 sep 25	1444	~~Tissue~~	1				
29	ACB-1 Rep 4	14 sep 25	1445	~~Tissue~~	1				
30	ACB-1 Rep 5	14 Sep 25	1454	~~Tissue~~	1				
31	ATT-IDZ Rep1	15 Sep 25	1649	~~Tissue~~	1				
32	ATT-IDZ Rep 2	15 Sep 25	1708	~~Tissue~~	1				
33	ATT-IDZ Rep 3	15 Sep 25	1706	~~Tissue~~	1				
34	ATT-IDZ Rep 4	15 Sep 25	1722	~~Tissue~~	1				
35	ATT-IDZ Rep5	15 Sep 25	1721	~~Tissue~~	1				
36	ACB-4 Rep1	17 Sep 25	1136	~~AFDW Tissue~~	1	X			

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

attn: Mr. Brent Mack

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.1				6	5		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: M. Dan	Date: 18-09-25	Time: 1400	Received by: TD	Date: 09/19/2025	Time: 830	Received by: RJ	Date: Sep-19	Time: 22:W

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

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Report To	Contact and company name below will appear on the final report	Reports / Recipients		Turnaround Time (TAT) Requested	
Company:	Hatfield Consultants	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)		☑ Routine [R] if received by 3pm M-F - no surcharges apply	AFFIX ALS BARCODE LABEL HERE (ALS use only)
Contact:	~~Adrienne Trac~~ Ben Beall	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A		☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum	
Phone:	6043302441	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum	
Street:	200 - 850 Harbourside Drive	Email 1 or Fax	bbeall@hatfieldgroup.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum Same day [E2] if received by 10am M-S - 200% rush surcharge.	
City/Province:	North Vancouver, BC	Email 2	atrac@hatfieldgroup.com	☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests	
Postal Code:	V7P 0A3	Email 3	KemessEnviro@centerragold.com	Date and Time Required for all E&P TATs:	dd-mmm-yy hh:mm am/pm
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Recipients		For all tests with rush TATs requested, please contact your AM to confirm availability.	
	Copy of Invoice with Report ☑ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX			
Company:		Email 1 or Fax	accounting-canada@hatfieldgroup.com		
Contact:		Email 2	atrac@hatfieldgroup.com		

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA25-HATF100-011	AFE/Cost Center:	PO#
Job #:	KEM12954	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):		ALS Contact: Brent Mack	Sampler: Hatfield

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	AFDW	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
37	ACB-4 Rep 2	17 Sep 25	1140	~~Tissue~~ AFDW	1	X			
38	ACB-4 Rep 3	17 Sep 25	1141	~~Tissue~~	1	|			
39	ACB-4 Rep 4	17 Sep 25	1151	~~Tissue~~	1	|			
40	ACB-4 Rep 5	17 Sep 25	1151	~~Tissue~~	1	|			
41	EEM-18 Rep 1	16 Sep 25	1230	~~Tissue~~	1	|			
42	EEM-18 Rep 2	16 Sep 25	1245	~~Tissue~~	1	|			
43	EEM-18 Rep 3	16 Sep 25	1249	~~Tissue~~	1	|			
44	EEM-18 Rep 4	16 Sep 25	1255	~~Tissue~~	1	|			
45	EEM-18 Rep 5	16 Sep 25	1304	~~Tissue~~ AFDW	1	X			
				~~Tissue~~					
				~~Tissue~~					
				~~Tissue~~					

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	attn: Mr. Brent Mack
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.1				6	5		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: M. David	Date: 18-09-25	Time: 1900	Received by:	Date: 09/19/2025	Time: 830	Received by: RJ	Date: Sep-19	Time: 22:00

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

COC Number: 20 -

Canada Toll Free: 1 800 668 9878

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Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Tac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: bbeall@hatfieldgroup.com
Email 2: atrac@hatfieldgroup.com
Email 3: KemessEnviro@centerragold.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: accounting-canada@hatfieldgroup.com
Email 2: atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] if received by 10am M-S - 200% rush surcharge.
☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #: VA25-HATF100-011
Job #: KEM12954
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack **Sampler:** Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Chl A	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
46	EEM-13 Rep 1	10-09-25		Chlorophyll a Tissue	1	X			
47	EEM-13 Rep 2	10-09-25		Chlorophyll a Tissue	1				
48	EEM-13 Rep 3	10-09-25		Chlorophyll a Tissue	1				
49	EEM-13 Rep 4	10-09-25		Chlorophyll a Tissue	1				
50	EEM-13 Rep 5	10-09-25		Chlorophyll a Tissue	1				
51	WRC-5 REP 1	11-09-25		Chlorophyll a Tissue	1				
52	WRC-5 Rep #2	11-09-25	1205	Chlorophyll a Tissue	1				
53	WRC-5 Rep 3	11-09-25		Chlorophyll a Tissue	1				
54	WRC-5 Rep 4	11-09-25	1225	Chlorophyll a Tissue	1				
55	WRC-5 Rep 5	11-09-25	1228	Chlorophyll a Tissue	1				
56	WQ-14ds Rep 1	11-09-25	1450	Chlorophyll a Tissue	1				
57	WQ-14ds Rep 2	11-09-25	1454	Chlorophyll a Tissue	1	X			

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Attn: Mr. Brent Mack

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
2.1				6	5		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
M Davies	18-09-25	1400

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
TD	09/10/2025	8:30

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
RJ	Sep-19	22:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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COC Number: 20 -

Canada Toll Free: 1 800 668 9878

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Environmental Division Vancouver

Work Order Reference VA25C4941

Telephone : +1 604 253 4188

Report To	Contact and company name below will appear on the final report	Reports / Recipients		Turnaround Time (TAT) Requested
Company:	Hatfield Consultants	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	~~Adrienne Trac~~ Ben Beall	Merge QC/QCI Reports with COA	☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge mini
Phone:	6043302441	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge min
	Company address below will appear on the final report	Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge min
Street:	200 - 850 Harbourside Drive	Email 1 or Fax	bbeall@hatfieldgroup.com	☐ 1 day [E] If received by 3pm M-F - 100% rush surcharge mini
City/Province:	North Vancouver, BC	Email 2	atrac@hatfieldgroup.com	Same day [E2] If received by 10am M-S - 200% rush surcharg
Postal Code:	V7P 0A3	Email 3	KemessEnviro@centerragold.com	☐ Additional fees may apply to rush requests on weekends, statuti and non-routine tests
Invoice To	Same as Report To ☑ YES ☐ NO	**Invoice Recipients**		Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs requested, please co
Company:		Email 1 or Fax	accounting-canada@hatfieldgroup.com	Analysis Req
Contact:		Email 2	atrac@hatfieldgroup.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA25-HATF100-011	AFE/Cost Center:	PO#
Job #:	KEM12954	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	VA25C4941	ALS Contact: Brent Mack	Sampler: Hatfield

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	AFDW	SAMPLES ON HOLD	EXTENDED STORAGE REQUIR	SUSPECTED HAZARD (see not
1	WRC-S REP 1	11-09-25	1210	~~AFDW Tissue~~	1	X			
2	WRC-S Rep 2	11-09-25	1215	~~AFDW Tissue~~	1				
3	WRC-S Rep3	11-09-25	1222	~~AFDW Tissue~~	1				
4	WRC-S Rep4	11-09-25	1231	~~Tissue~~	1				
5	WRC-S Rep 5	11-09-25	1240	~~Tissue~~	1				
6	WQ-14DS Rep 1	11-09-25	1500	~~Tissue~~	1				
7	WQ-14DS Rep2	11-09-25	1509	~~Tissue~~	1				
8	WQ-14DS Rep3	11-09-25	1514	~~Tissue~~	1				
9	WQ-14DS Rep4	11-09-25	1532	~~Tissue~~	1				
10	WQ-14DS Rep5	11-09-25	1538	Tissue	1				
11	EEM-13 - Rep 1	12-Sep-25	0828	Tissue	1				
12	EEM-13 - Rep 2	12-Sep-25	0828	~~AFDW~~ Tissue	1	X			

PG&E Shipping & Receiving
___ Call Out ___ Expedite
___ Priority
2 # of Coolers ✓ Air
___ # of Carboys ___ Ground

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	attn: Mr Brent Mack
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
8.1	6 5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: MD DAVID	Date: 18-09-25	Time: 1400	Received by: TD	Date: 09/19/2025	Time: 830	Received by: RJ	Date: Sep-19	Time: 22:10

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Trac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: bbeall@hatfieldgroup.com
Email 2: atrac@hatfieldgroup.com
Email 3: KemessEnviro@centerragold.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: accounting-canada@hatfieldgroup.com
Email 2: atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] if received by 10am M-S - 200% rush surcharge.
☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #: VA25-HATF100-011
Job #: KEM12954
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack Sampler: Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	AFDW	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
13	EEM-13 Rep3	12-Sep-25	0829	AFDW ~~Tissue~~	1	X			
14	EEM-13 Rep4	12-Sep-25	0830	~~Tissue~~	1				
15	EEM-13 Rep 5	12-Sep 25	0830	~~Tissue~~	1				
16	ACB_3 Rep1	12-Sep-25	1502	~~Tissue~~	1				
17	ACB-3 Rep2	12-Sep-25	1500	~~Tissue~~	1				
18	ACB-~~3~~3 - Rep 3	12-Sep-25	1500	~~Tissue~~	1				
19	ACB-3 Rep 4	12-Sep-25	1523	~~Tissue~~	1				
20	ACB-3 Rep5	12-Sep-25	1520	~~Tissue~~	1				
21	EEM-17 Rep1	13 Sep 25	1035	~~Tissue~~	1				
22	EEM-17 Rep 2	13 Sep 25	1034	~~Tissue~~	1				
23	EEM-17 Rep3	13 Sep 25	1050	~~Tissue~~	1				
24	EEM-17 Rep 4	13 Sep 25	1100	AFDW ~~Tissue~~	1	X			

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

attn: Mr Brent Mack

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.1				6	5		

SHIPMENT RELEASE (client use)

Released by: M Davies Date: 18-09-25 Time: 1900

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by: TD Date: 09/19/2025 Time: 830

FINAL SHIPMENT RECEPTION (ALS use only)

Received by: RJ Date: Sep 19 Time: 22:40

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Trac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	bbeall@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com
Email 3	KemessEnviro@centerragold.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] if received by 10am M-S - 200% rush surcharge.
☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	accounting-canada@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com

Project Information

ALS Account # / Quote #:	VA25 - HATF100 - 011
Job #:	KEM12954
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack Sampler: Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	AFDW	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
25	EEM-17 Rep 5	13 Sep 25	1105	AFDW ~~Tissue~~	1	f			
26	ACB-1 Rep1	14 sep 25	1428	~~Tissue~~	1	|			
27	ACB-1 Rep2	14 Sep 25	1435	~~Tissue~~	1	|			
28	ACB-1 Rep3	14 Sep 25	1444	~~Tissue~~	1	|			
29	ACB-1 Rep 4	14 sep25	1445	~~Tissue~~	1	|			
30	ACB-1 Rep 5	14 Sep 25	1454	~~Tissue~~	1	|			
31	ATT-IDZ Rep1	15 Sep 25	1649	~~Tissue~~	1	|			
32	ATT-IDZ Rep 2	15 Sep 25	1708	~~Tissue~~	1	|			
33	ATT-IDZ Rep 3	15 Sep 25	1706	~~Tissue~~	1	|			
34	ATT-IDZ Rep 4	15 Sep 25	1722	~~Tissue~~	1	|			
35	ATT-IDZ Rep5	15 Sep 25	1721	~~Tissue~~	1	|			
36	ACB-4 Rep1	17 Sep 25	1136	AFDW Tissue	1	x			

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

attn : Mr. Brent Mack

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.1				6	5		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
M. David	18-09-25	1400

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
TD	09/19/2025	830

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
RJ	Sep-19	22:40

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Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Trac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: bbeall@hatfieldgroup.com
Email 2: atrac@hatfieldgroup.com
Email 3: KemessEnviro@centerragold.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: accounting-canada@hatfieldgroup.com
Email 2: atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] if received by 10am M-S - 200% rush surcharge.
☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #: VA25-HATF100-011
Job #: KEM12954
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack Sampler: Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	HFDW	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
37	ACB-4 Rep 2	17 Sep 25	11 40	~~Tissue~~ HFDW	1	X			
38	ACB-4 Rep 3	17 Sep 25	1141	~~Tissue~~	1				
39	ACB-4 Rep 4	17 Sep 25	1151	~~Tissue~~	1				
40	ACB-4 Rep5	17 Sep 25	1151	~~Tissue~~	1				
41	EEM-18 Rep 1	16 Sep 25	12 30	~~Tissue~~	1				
42	EEM-18 Rep 2	16 Sep 25	12 45	~~Tissue~~	1				
43	EEM-18 Rep 3	16 Sep 25	1249	~~Tissue~~	1				
44	EEM-18 Rep 4	16 Sep 25	1255	~~Tissue~~	1				
45	EEM-18 Rep 5	16 Sep 25	1304	~~Tissue~~ HFDW	1	X			
				~~Tissue~~					
				~~Tissue~~					
				~~Tissue~~					

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

attn: Mr. Brent Mack

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
8.1	6 5

SHIPMENT RELEASE (client use)

Released by: M. Davis Date: 18-09-25 Time: 1400

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by: ND Date: 09/19/2025 Time: 830

FINAL SHIPMENT RECEPTION (ALS use only)

Received by: RJ Date: Sep-19 Time: 22:00

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

COC Number: 20 -

Page 5 of 9

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Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Trac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: bbeall@hatfieldgroup.com
Email 2: atrac@hatfieldgroup.com
Email 3: KemessEnviro@centerragold.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: accounting-canada@hatfieldgroup.com
Email 2: atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] if received by 10am M-S - 200% rush surcharge.
☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #: VA25-HATF100-011
Job #: KEM12954
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack Sampler: Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	CHL A	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
46	EEM-13 Rep 1	10-09-25		Chlorophyll a Tissue	1	X			
47	EEM-13 Rep 2	10-09-25		Chlorophyll a Tissue	1				
48	EEM-13 Rep 3	10-09-25		Chlorophyll a Tissue	1				
49	EEM-13 Rep 4	10-09-25		Chlorophyll a Tissue	1				
50	EEM-13 Rep 5	10-09-25		Chlorophyll a Tissue	1				
51	WRC-5 REP1	11-09-25		Chlorophyll a Tissue	1				
52	WRC-5 Rep #2	11-09-25	1205	Chlorophyll a Tissue	1				
53	WRC-5 Rep 3	11-09-25		Chlorophyll a Tissue	1				
54	WRC-5 Rep 4	11-09-25	1225	Chlorophyll a Tissue	1				
55	WRC-5 Rep 5	11-09-25	1228	Chlorophyll a Tissue	1				
56	WQ-14ds Rep 1	11-09-25	1450	Chlorophyll a Tissue	1				
57	WQ-14ds Rep 2	11-09-25	1454	Chlorophyll a Tissue	1	X			

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Attn: Mr. Brent Mack

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
2.1	6 5

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
M Davies	18-09-25	1900

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
TD	09/19/2025	830

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
RJ	Sep 19	22:10

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

COC Number: 20 -

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Page 6 of 9

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrianne Trac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	bbeall@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com
Email 3	KemessEnviro@centerragold.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	accounting-canada@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] if received by 10am M-S - 200% rush surcharge.
☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA25-HATF100-011
Job #:	KEM12954
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack **Sampler:** Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	CHL A	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
58	WQ-140S Rep3	11-09-25	1510	~~Chlorophyll Tissue~~	1	X			
59	WQ-140S Rep4	11-09-25	1519	~~Chlorophyll Tissue~~	1				
60	WQ-140S Rep5	11-09-25	1530	~~Chlorophyll Tissue~~	1				
61	ACB3 Rep1	12 Sep 25	1455	~~Tissue~~	1				
62	ACB3 Rep2	12 Sep 25	1450	~~Tissue~~	1				
63	ACB3 Rep3	12 Sep 25	1455	~~Tissue~~	1				
64	ACB3 Rep4	12 Sep 25	1515	~~Tissue~~	1				
65	ACB3 Rep5	12 Sep 25	1515	~~Tissue~~	1				
66	EEM-17 Rep1	13 Sep 25	1025	~~Tissue~~	1				
67	EEM-17 Rep2	13 Sep 25	1028	~~Tissue~~	1				
68	EEM-17 Rep3	13 Sep 25	1040	~~Tissue~~	1				
69	EEM-17 Rep4	13 Sep 25	1055	~~Chlorophyll Tissue~~	1	X			

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

attn: Mr. Brent Mack.

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
8.1	6.5

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
M.Dant	18-09-25	1400

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
TD	09/19/2025	8:30

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
RJ	Sep 19	22:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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ALS www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Trae~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	bbeall@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com
Email 3	KemessEnviro@centerragold.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	accounting-canada@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] if received by 10am M-S - 200% rush surcharge.
☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA25-HATF100-011
Job #:	KEM12954
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack Sampler: Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Chl A	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
70	EEM-17 Rep5	13 Sep 25	1105	~~Chlorophyll~~ Tissue	1	X			
71	ACB-1 Rep1	14 Sep 25	1421	~~Tissue~~	1				
72	ACB-1 Rep2	14 Sep 25	1430	~~Tissue~~	1				
73	ACB-1 Rep3	14 Sep 25	1436	~~Tissue~~	1				
74	ACB-1 Rep4	14 Sep 25	1440	~~Tissue~~	1				
75	ACB-1 Rep5	14 Sep 25	1447	~~Tissue~~	1				
76	ATT-1DZ Rep1	15 Sep 25	1645	~~Tissue~~	1				
77	ATT-1DZ Rep2	15 Sep 25	1701	~~Tissue~~	1				
78	ATT 1DZ Rep3	15 Sep 25	1702	~~Tissue~~	1				
79	ATT 1DZ Rep4	15 Sep 25	1714	~~Tissue~~	1				
80	ATT 1DZ Rep5	15 Sep 25	1717	~~Tissue~~	1				
81	ACB 4 - Rep1	17 Sep 25	1126	~~Chl A Tissue~~	1	X			

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

attn : Mr. Brent Mack.

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.1				6	5		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
MDavies	18-09-25	1400

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
TD	09/19/2025	8:30

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
RJ	Sep-19	22:10

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

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Canada Toll Free: 1 800 668 9878

COC Number: 20 -

Page 9 of 9

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Trac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

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

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: bbeall@hatfieldgroup.com

Email 2: atrac@hatfieldgroup.com

Email 3: KemessEnviro@centerragold.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounting-canada@hatfieldgroup.com

Email 2: atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

Same day [E2] if received by 10am M-S - 200% rush surcharge.

☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #: VA25-HATFI00-011

Job #: KEM12954

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack Sampler: Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Chl. a	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
82	ACB-4 Rep2	17sep25	1135	~~Chl. a~~ ~~Tissue~~	1	X			
83	ACB 4 Rep3	17sep25	1137	~~Tissue~~	1				
84	ACB4 Rep4	17sep25	1147	~~Tissue~~	1				
85	ACB4 Rep5	17sep25	1147	~~Tissue~~	1				
86	EEM 18 Rep1	16sep25	1235	~~Tissue~~	1				
87	EEM 18 Rep2	16sep25	1245	~~Tissue~~	1				
88	EEM 18 Rep3	16sep25	1243	~~Tissue~~	1				
89	EEM 18 Rep4	16sep25	1250	~~Tissue~~	1				
90	EEM 18 Rep5	16sep25	1300	~~Tissue~~	1	X			
				~~Tissue~~					
				~~Tissue~~					
				~~Chl. a~~ ~~Tissue~~					

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Attn: Mr. Brent Mack.

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.1				6	5		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
M Davies	18-09-25	1400

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
HD	09/19/2025	330

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
RJ	Sep-19	2200

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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ALS www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	~~Adrienne Trac~~ Ben Beall
Phone:	6043302441
	Company address below will appear on the final report
Street:	200 - 850 Harbourside Drive
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

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

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	bbeall@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com
Email 3	KemessEnviro@centerragold.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	accounting-canada@hatfieldgroup.com
Email 2	atrac@hatfieldgroup.com

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] If received by 10am M-S - 200% rush surcharge.
☐ Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:	VA25 - HATF100 - 011
Job #:	KEM12954
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (ALS use only):

ALS Contact: Brent Mack **Sampler:** Hatfield

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	MOISTURE	METALS	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
91	EEM-13	10-09-25		~~Peri~~ Tissue	1	X	X			
92	WRC-5	11-09-25	1245	Tissue	1	X	X			
93	WQ-14DS	11-09-25	1535	Tissue	1	X	X			
94	ACB-3	12-Sep-25	1530	Tissue	1	X	X			
95	DUP 1	12Sep 25	1515	Tissue	1	X	X			
96	EEM 17	13Sep25	1106	Tissue	1	X	X			
97	ACB-1	14Sep25	1501	Tissue	1	X	X			
98	EEM-18	16Sep25	1308	Tissue	1	X	X			
99	ATT 102	15Sep25	1722	Tissue	1	X	X			
				Tissue						
				Tissue						
				Tissue						

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Attn: Mr. Brent Mack

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.1							

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
M. Davis	18-09-25	1400

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
TD	09/19/2025	830

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25C5371**			
Client	:	**Hatfield Consultants LLP**	Laboratory	:	ALS Environmental - Vancouver
Contact	:	Brianne Kucharski	Account Manager	:	Brent Mack
Address	:	200 - 850 Harbourside Drive North Vancouver British Columbia Canada V7P 0A3	Address	:	8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:		E-mail	:	Brent.Mack@ALSGlobal.com
Project	:	KEM12954	Telephone	:	778-370-3279
PO	:	4500002781	Date Samples Received	:	23-Sep-2025 11:50
C-O-C number	:	23-1161828/1161831	Date Analysis Commenced	:	26-Sep-2025
Sampler	:	----	Issue Date	:	09-Oct-2025 14:24
Site	:	AMI/Kemess Mine			
Quote number	:	VA23-CEGO100-004 (Hatfield c/o Centerra)			
No. of samples received	:	18			
No. of samples analysed	:	18			

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Colby Bingham	Laboratory Supervisor	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Janice Leung	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Miles Gropen	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Organics, Burnaby, British Columbia

General Comments

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

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

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

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

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

Unit	*Description*
%	percent
g/sample	grams per sample
mg/kg	milligrams per kilogram
pH units	pH units
µg	micrograms

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

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Sediment
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB-2-REP1 ----	ACB-2-REP2 ----	ACB-2-REP3 ----	----	----
					Client sampling date / time	18-Sep-2025 14:19	18-Sep-2025 14:22	18-Sep-2025 14:25	----	----
						VA25C5371-001	VA25C5371-002	VA25C5371-003	----	----
						Result	Result	Result	----	----
Physical Tests										
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		8.05	7.80	7.78	----	----
Particle Size										
Gravel (>2mm)	----	EC184E/SK	1.0	%		8.5	<1.0	11.9	----	----
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%		88.0	83.8	79.2	----	----
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%		3.5	13.7	7.8	----	----
Clay (<0.004mm)	----	EC184E/SK	1.0	%		<1.0	2.4	1.1	----	----
Percent Passing										
Passing (0.002mm)	----	E184/SK	1.0	%		<1.0	1.8	<1.0	----	----
Passing (0.004mm)	----	E184/SK	1.0	%		<1.0	2.4	1.1	----	----
Passing (0.005mm)	----	E184/SK	1.0	%		<1.0	2.7	1.3	----	----
Passing (0.020mm)	----	E184/SK	1.0	%		1.4	6.7	3.6	----	----
Passing (0.0312mm)	----	E184/SK	1.0	%		2.0	9.2	5.1	----	----
Passing (0.05mm)	----	E182/SK	1.0	%		3.0	13.4	7.6	----	----
Passing (0.063mm)	----	E182/SK	1.0	%		3.5	16.1	8.9	----	----
Passing (0.075mm)	----	E182/SK	1.0	%		4.0	18.6	10.2	----	----
Passing (0.125mm)	----	E182/SK	1.0	%		6.0	28.9	15.4	----	----
Passing (0.149mm)	----	E182/SK	1.0	%		7.5	34.8	18.0	----	----
Passing (0.250mm)	----	E182/SK	1.0	%		13.9	59.8	28.7	----	----
Passing (0.420mm)	----	E182/SK	1.0	%		31.2	81.0	49.4	----	----
Passing (0.50mm)	----	E182/SK	1.0	%		39.3	91.0	59.2	----	----
Passing (0.841mm)	----	E182/SK	1.0	%		63.8	96.2	74.0	----	----

Analytical Results

Sub-Matrix: Sediment
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: ACB-2-REP1 ----	ACB-2-REP2 ----	ACB-2-REP3 ----	----	----
					Client sampling date / time: 18-Sep-2025 14:19	18-Sep-2025 14:22	18-Sep-2025 14:25	----	----
					VA25C5371-001	VA25C5371-002	VA25C5371-003	----	----
					Result	Result	Result	----	----
Percent Passing									
Passing (1.0mm)	----	E182/SK	1.0	%	75.2	98.6	80.9	----	----
Passing (19mm)	----	E181/SK	1.0	%	100.0	100.0	100.0	----	----
Passing (2.0mm)	----	E181/SK	1.0	%	91.5	99.9	88.1	----	----
Passing (25.4mm)	----	E181/SK	1.0	%	100.0	100.0	100.0	----	----
Passing (38.1mm)	----	E181/SK	1.0	%	100.0	100.0	100.0	----	----
Passing (4.75mm)	----	E181/SK	1.0	%	99.6	100.0	98.6	----	----
Passing (50.8mm)	----	E181/SK	1.0	%	100.0	100.0	100.0	----	----
Passing (76.2mm)	----	E181/SK	1.0	%	100.0	100.0	100.0	----	----
Passing (9.5mm)	----	E181/SK	1.0	%	100.0	100.0	100.0	----	----
Organic / Inorganic Carbon									
Carbon, total [TC]	----	E351/SK	0.050	%	0.164	0.517	0.382	----	----
Carbon, inorganic [IC]	----	E354/SK	0.050	%	0.089	0.110	0.110	----	----
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%	0.74	0.91	0.92	----	----
Carbon, total organic [TOC]	----	EC356/SK	0.050	%	0.075	0.407	0.272	----	----
Organic matter	----	EC356/SK	0.10	%	0.13	0.70	0.47	----	----
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	15400	19300	18000	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg	1.03	1.19	1.14	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	10.2	13.9	13.0	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg	102	152	141	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.33	0.44	0.40	----	----

Analytical Results

Sub-Matrix: Sediment
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB-2-REP1 ----	ACB-2-REP2 ----	ACB-2-REP3 ----	----	----
					Client sampling date / time	18-Sep-2025 14:19	18-Sep-2025 14:22	18-Sep-2025 14:25	----	----
						VA25C5371-001	VA25C5371-002	VA25C5371-003	----	----
						Result	Result	Result	----	----
Metals										
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg		<5.0	<5.0	<5.0	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		0.119	0.162	0.163	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg		6890	9250	8180	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg		10.6	8.88	10.2	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		7.15	7.80	7.59	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg		13.6	17.2	16.4	----	----
Iron	7439-89-6	E440/VA	50	mg/kg		22900	21900	23200	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg		6.19	8.40	8.19	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg		13.9	16.8	16.1	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg		7120	7330	7580	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg		670	737	740	----	----
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		<0.0500	<0.0500	<0.0500	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		0.42	0.59	0.51	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg		5.43	5.66	6.23	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg		576	592	606	----	----
Potassium	7440-09-7	E440/VA	100	mg/kg		1160	1280	1260	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg		131	164	157	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg		53.9	78.7	75.6	----	----

Analytical Results

Sub-Matrix: Sediment
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: ACB-2-REP1 ----	ACB-2-REP2 ----	ACB-2-REP3 ----	----	----
					Client sampling date / time: 18-Sep-2025 14:19	18-Sep-2025 14:22	18-Sep-2025 14:25	----	----
					VA25C5371-001	VA25C5371-002	VA25C5371-003	----	----
					Result	Result	Result	----	----
Metals									
Sulfur	7704-34-9	E440/VA	1000	mg/kg	<1000	<1000	<1000	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg	<2.0	<2.0	<2.0	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg	771	671	626	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg	0.763	0.977	1.02	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	55.2	51.3	53.9	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg	52.8	60.6	58.2	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	4.1	3.0	3.1	----	----

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

Analytical Results

Sub-Matrix: Biota
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: ACB-2 REP 1 ----	ACB-2 REP 2 ----	ACB-2 REP 3 ----	ACB-2 REP 4 ----	ACB-2 REP 5 ----
					Client sampling date / time: 18-Sep-2025 15:20	18-Sep-2025 15:20	18-Sep-2025 15:31	18-Sep-2025 15:31	18-Sep-2025 15:39
					VA25C5371-004	VA25C5371-005	VA25C5371-006	VA25C5371-007	VA25C5371-008
					Result	Result	Result	Result	Result
Physical Tests									
Ash free dry weight	----	E137/VA	0.0010	g/sample	0.0131	0.0486	0.0560	0.0244	0.0342
Ash weight	----	E137/VA	0.0010	g/sample	0.0260	0.136	0.154	0.162	0.169
Weight, dry	----	E137/VA	0.0010	g/sample	0.0390	0.184	0.210	0.187	0.203

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

Analytical Results

Sub-Matrix: Biota
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	ACB-2 REP 1 ----	ACB-2 REP 2 ----	ACB-2 REP 3 ----	ACB-2 REP 4 ----	ACB-2 REP 5 ----
					Client sampling date / time	18-Sep-2025 15:15	18-Sep-2025 15:16	18-Sep-2025 15:27	18-Sep-2025 15:27	18-Sep-2025 15:35
						VA25C5371-009	VA25C5371-010	VA25C5371-011	VA25C5371-012	VA25C5371-013
						Result	Result	Result	Result	Result
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		32.5	21.3	35.7	28.0	49.5

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

Analytical Results

Sub-Matrix: Biota
(Matrix: Biota)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WQ-14F Rep 1 ----	WQ-14F Rep 2 ----	WQ-14F Rep 3 ----	WQ-14F Rep 4 ----	WQ-14F Rep 5 ----
					Client sampling date / time	19-Sep-2025 11:00	19-Sep-2025 11:00	19-Sep-2025 11:00	19-Sep-2025 11:00	19-Sep-2025 11:00
						VA25C5371-014	VA25C5371-015	VA25C5371-016	VA25C5371-017	VA25C5371-018
						Result	Result	Result	Result	Result
Physical Tests										
Ash free dry weight	----	E137/VA	0.0010	g/sample		0.0752	0.0481	0.0401	0.0510	0.0676
Ash weight	----	E137/VA	0.0010	g/sample		0.0965	0.178	0.129	0.278	0.107
Weight, dry	----	E137/VA	0.0010	g/sample		0.172	0.226	0.169	0.329	0.175
Plant Pigments										
Chlorophyll a	479-61-8	E870/VA	0.010	µg		49.0	10.9	50.1	43.0	46.1

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

ALS Canada Ltd.

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right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25C5371**	Page	: 1 of 12
Client	: **Hatfield Consultants LLP**	Laboratory	: ALS Environmental - Vancouver
Contact	: Brianne Kucharski	Account Manager	: Brent Mack
Address	: 200 - 850 Harbourside Drive North Vancouver BC Canada V7P 0A3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: 778-370-3279
Project	: KEM12954	Date Samples Received	: 23-Sep-2025 11:50
PO	: 4500002781	Issue Date	: 09-Oct-2025 14:21
C-O-C number	: 23-1161828/1161831		
Sampler	: ----		
Site	: AMI/Kemess Mine		
Quote number	: VA23-CEGO100-004 (Hatfield c/o Centerra)		
No. of samples received	: 18		
No. of samples analysed	: 18		

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

Key

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

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA25C5371-001	ACB-2-REP1	Chromium	7440-47-3	E440	55.2 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	Description
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Analysis Holding Time Compliance

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

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

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

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

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette WQ-14F Rep 1	E137	19-Sep-2025	----	----	----		07-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette WQ-14F Rep 2	E137	19-Sep-2025	----	----	----		07-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette WQ-14F Rep 3	E137	19-Sep-2025	----	----	----		07-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette WQ-14F Rep 4	E137	19-Sep-2025	----	----	----		07-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette WQ-14F Rep 5	E137	19-Sep-2025	----	----	----		07-Oct-2025	180 days	18 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette ACB-2 REP 1	E137	18-Sep-2025	----	----	----		07-Oct-2025	180 days	19 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette ACB-2 REP 2	E137	18-Sep-2025	----	----	----		07-Oct-2025	180 days	19 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette ACB-2 REP 3	E137	18-Sep-2025	----	----	----		07-Oct-2025	180 days	19 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette ACB-2 REP 4	E137	18-Sep-2025	----	----	----		07-Oct-2025	180 days	19 days	✓
Physical Tests : Ash-free Dry Weight by Gravimetry										
Cassette ACB-2 REP 5	E137	18-Sep-2025	----	----	----		07-Oct-2025	180 days	19 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14F Rep 1	E870	19-Sep-2025	29-Sep-2025	28 days	10 days	✓	29-Sep-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14F Rep 2	E870	19-Sep-2025	29-Sep-2025	28 days	10 days	✓	29-Sep-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14F Rep 3	E870	19-Sep-2025	29-Sep-2025	28 days	10 days	✓	29-Sep-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14F Rep 4	E870	19-Sep-2025	29-Sep-2025	28 days	10 days	✓	29-Sep-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube WQ-14F Rep 5	E870	19-Sep-2025	29-Sep-2025	28 days	10 days	✓	29-Sep-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-2 REP 1	E870	18-Sep-2025	29-Sep-2025	28 days	11 days	✓	29-Sep-2025	28 days	0 days	✓

Matrix: **Biota**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-2 REP 2	E870	18-Sep-2025	29-Sep-2025	28 days	11 days	✓	29-Sep-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-2 REP 3	E870	18-Sep-2025	29-Sep-2025	28 days	11 days	✓	29-Sep-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-2 REP 4	E870	18-Sep-2025	29-Sep-2025	28 days	11 days	✓	29-Sep-2025	28 days	0 days	✓
Plant Pigments : Chlorophyll-a by Fluorometry										
Opaque HDPE tube ACB-2 REP 5	E870	18-Sep-2025	29-Sep-2025	28 days	11 days	✓	29-Sep-2025	28 days	0 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap ACB-2-REP1	E510	18-Sep-2025	30-Sep-2025	28 days	12 days	✓	01-Oct-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap ACB-2-REP2	E510	18-Sep-2025	30-Sep-2025	28 days	12 days	✓	01-Oct-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap ACB-2-REP3	E510	18-Sep-2025	30-Sep-2025	28 days	12 days	✓	01-Oct-2025	28 days	1 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap ACB-2-REP1	E440	18-Sep-2025	30-Sep-2025	180 days	12 days	✓	01-Oct-2025	180 days	12 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
ACB-2-REP2	E440	18-Sep-2025	30-Sep-2025	180 days	12 days	✓	01-Oct-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
ACB-2-REP3	E440	18-Sep-2025	30-Sep-2025	180 days	12 days	✓	01-Oct-2025	180 days	12 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag										
ACB-2-REP1	E351	18-Sep-2025	01-Oct-2025	----	----		01-Oct-2025	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag										
ACB-2-REP2	E351	18-Sep-2025	01-Oct-2025	----	----		01-Oct-2025	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag										
ACB-2-REP3	E351	18-Sep-2025	01-Oct-2025	----	----		01-Oct-2025	0 days	0 days	✓
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag										
ACB-2-REP1	E354	18-Sep-2025	----	----	----		30-Sep-2025	----	----	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag										
ACB-2-REP2	E354	18-Sep-2025	----	----	----		30-Sep-2025	----	----	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag										
ACB-2-REP3	E354	18-Sep-2025	----	----	----		30-Sep-2025	----	----	
Percent Passing : Particle Size Analysis - Pipette Method										
LDPE bag										
ACB-2-REP1	E184	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Percent Passing : Particle Size Analysis - Pipette Method										
LDPE bag ACB-2-REP2	E184	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓
Percent Passing : Particle Size Analysis - Pipette Method										
LDPE bag ACB-2-REP3	E184	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓
Percent Passing : Particle Size Analysis - Sieve <2mm										
LDPE bag ACB-2-REP1	E182	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓
Percent Passing : Particle Size Analysis - Sieve <2mm										
LDPE bag ACB-2-REP2	E182	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓
Percent Passing : Particle Size Analysis - Sieve <2mm										
LDPE bag ACB-2-REP3	E182	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓
Percent Passing : Particle Size Analysis - Sieve >2mm										
LDPE bag ACB-2-REP1	E181	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓
Percent Passing : Particle Size Analysis - Sieve >2mm										
LDPE bag ACB-2-REP2	E181	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓
Percent Passing : Particle Size Analysis - Sieve >2mm										
LDPE bag ACB-2-REP3	E181	18-Sep-2025	26-Sep-2025	365 days	8 days	✓	26-Sep-2025	365 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap ACB-2-REP1	E108	18-Sep-2025	30-Sep-2025	30 days	12 days	✓	01-Oct-2025	30 days	12 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap										
ACB-2-REP2	E108	18-Sep-2025	30-Sep-2025	30 days	12 days	✓	01-Oct-2025	30 days	12 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
Glass soil jar/Teflon lined cap										
ACB-2-REP3	E108	18-Sep-2025	30-Sep-2025	30 days	12 days	✓	01-Oct-2025	30 days	12 days	✓

Legend & Qualifier Definitions

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

Quality Control Parameter Frequency Compliance

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

Matrix: **Biota**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS)							
Ash-free Dry Weight by Gravimetry	E137	2262453	2	28	7.1	5.0	✓
Chlorophyll-a by Fluorometry	E870	2248784	1	10	10.0	5.0	✓
Method Blanks (MB)							
Ash-free Dry Weight by Gravimetry	E137	2262453	2	28	7.1	5.0	✓
Chlorophyll-a by Fluorometry	E870	2248784	1	10	10.0	5.0	✓

Matrix: **Soil/Solid**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2248877	1	10	10.0	5.0	✓
Particle Size Analysis - Sieve <2mm	E182	2244835	1	3	33.3	5.0	✓
Particle Size Analysis - Pipette Method	E184	2244833	1	3	33.3	5.0	✓
Total Carbon by Combustion	E351	2251438	1	10	10.0	5.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	2249497	1	20	5.0	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2248876	1	9	11.1	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2248875	1	9	11.1	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2248877	1	10	10.0	5.0	✓
Particle Size Analysis - Sieve >2mm	E181	2244834	1	3	33.3	5.0	✓
Particle Size Analysis - Sieve <2mm	E182	2244835	1	3	33.3	5.0	✓
Particle Size Analysis - Pipette Method	E184	2244833	1	3	33.3	5.0	✓
Total Carbon by Combustion	E351	2251438	2	10	20.0	10.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	2249497	2	20	10.0	10.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2248876	2	9	22.2	10.0	✓
Mercury in Soil/Solid by CVAAS	E510	2248875	2	9	22.2	10.0	✓
Method Blanks (MB)							
Total Carbon by Combustion	E351	2251438	1	10	10.0	5.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	2249497	1	20	5.0	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2248876	1	9	11.1	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2248875	1	9	11.1	5.0	✓

Methodology References and Summaries

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

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ash-free Dry Weight by Gravimetry	E137 ALS Environmental - Vancouver	Biota	APHA 10200 I (mod)	"Ash-free dry weight is determined gravimetrically after drying the submitted sample at 105°C. The residue is then ignited at 500°C and the ash rewetted to restore water of hydration to clays and other minerals. The ash weight is determined gravimetrically after bringing the rewetted ash to constant weight at 104°. The ash-free dry weight is the difference between the dry weight and the ash weight.
Chlorophyll-a by Fluorometry	E870 ALS Environmental - Vancouver	Biota	EPA 445.0 (mod)	Chlorophyll-a is determined by solvent extraction followed with analysis by fluorometry using the non-acidification procedure.
pH by Meter (1:2 Soil:Water Extraction)	E108 ALS Environmental - Vancouver	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally 20 ± 5°C), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at <60 ºC) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Particle Size Analysis - Sieve >2mm	E181 ALS Environmental - Saskatoon	Soil/Solid	ASTM D6913-17 (mod)	Soil samples are disaggregated and sieved through a 2mm sieve. Material retained on the sieve is then further sieved through a series of sieves. The amount passing through the sieves is measured gravimetrically.
Particle Size Analysis - Sieve <2mm	E182 ALS Environmental - Saskatoon	Soil/Solid	ASTM D6913-17 (mod)	Soil samples are disaggregated and sieved through a 2mm sieve. Material passed through the sieve is then further disaggregated using calgon solution and passed through a series of sieves. The amount passing through the sieves is measured gravimetrically.
Particle Size Analysis - Pipette Method	E184 ALS Environmental - Saskatoon	Soil/Solid	SSIR-51 Method 3.2.1	Soil material is separated from coarse material (>2mm). A specimen is then disaggregated through mixing with Calgon solution. The material is then suspended in solution wherein regular aliquots are taken using a mechanical pipette at specific time intervals. The aliquots are dried and material in suspension determined gravimetrically. The principles of Stokes' Law are applied to determine the amount of material remaining in solution as well as the maximum particle size remaining in solution at the specified time.
Total Carbon by Combustion	E351 ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 21.2 (mod)	Total Carbon is determined by the high temperature combustion method with measurement by an infrared detector.
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354 ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 20.2	Total Inorganic Carbon is determined by acetic acid pH standard curve, where a known quantity of acetic acid is consumed by reaction with carbonates in the soil. The pH of the resulting solution is measured and compared against a standard curve relating pH to weight of carbonate.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals in Soil/Solid by CRC ICPMS	E440 ALS Environmental - Vancouver	Soil/Solid	EPA 6020B (mod)	This method is intended to liberate metals that may be environmentally available. Samples are dried, then sieved through a 2 mm sieve, and digested with HNO3 and HCl. Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Silicate minerals are not solubilized. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. This method does not adequately recover elemental sulfur, and is unsuitable for assessment of elemental sulfur standards or guidelines. Analysis is by Collision/Reaction Cell ICPMS.
Mercury in Soil/Solid by CVAAS	E510 ALS Environmental - Vancouver	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO3 and HCl, followed by CVAAS analysis.
Particle Size Analysis (Pipette) - MMER Classification	EC184E ALS Environmental - Saskatoon	Soil/Solid	Metal Mining Technical Guidance for Environmental Effects Monitoring (2012)	The particle size determination is performed by various methods to generate a Grain Size curve. The data from the curve is then used to produce particle size ranges based on the Metal Mining Effluent Regulations (MMER) classification system for Environmental Effects Monitoring.
Total Organic Carbon (Calculated) in soil	EC356 ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 21.2	Total Organic Carbon (TOC) is calculated by the difference between total carbon (TC) and total inorganic carbon (TIC).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Chlorophyll-a Extraction	EP870 ALS Environmental - Vancouver	Biota	EPA 445.0 (mod)	Chlorophyll-a solvent extraction.
Leach 1:2 Soil:Water for pH/EC	EP108 ALS Environmental - Vancouver	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Digestion for Metals and Mercury	EP440 ALS Environmental - Vancouver	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO3 and HCl. This method is intended to liberate metals that may be environmentally available.
Dry and Grind in Soil/Solid <60°C	EPP442 ALS Environmental - Saskatoon	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.

QUALITY CONTROL REPORT

Work Order	: **VA25C5371**	Page	: 1 of 10
Client	: Hatfield Consultants LLP	Laboratory	: ALS Environmental - Vancouver
Contact	: Brianne Kucharski	Account Manager	: Brent Mack
Address	: 200 - 299 Victoria Street Prince George BC Canada	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: 778-370-3279
Project	: KEM12954	Date Samples Received	: 23-Sep-2025 11:50
PO	: 4500002781	Date Analysis Commenced	: 26-Sep-2025
C-O-C number	: 23-1161828/1161831	Issue Date	: 09-Oct-2025 14:24
Sampler	: ----		
Site	: AMI/Kemess Mine		
Quote number	: VA23-CEGO100-004 (Hatfield c/o Centerra)		
No. of samples received	: 18		
No. of samples analysed	: 18		

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

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

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

Signatories	*Position*	*Laboratory Department*
Colby Bingham	Laboratory Supervisor	Saskatoon Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Saskatoon Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Saskatoon Sask Soils, Saskatoon, Saskatchewan
Janice Leung	Supervisor - Organics Instrumentation	Vancouver Organics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Miles Gropen	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Vancouver Organics, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **Soil/Solid**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 2248877)											
VA25C5371-001	ACB-2-REP1	pH (1:2 soil:water)	----	E108	0.10	pH units	8.05	8.09	0.5%	5%	----
Percent Passing (QC Lot: 2244833)											
VA25C5371-001	ACB-2-REP1	Passing (0.002mm)	----	E184	1.0	%	<1.0	<1.0	0	Diff <2x LOR	----
		Passing (0.004mm)	----	E184	1.0	%	<1.0	<1.0	0	Diff <2x LOR	----
		Passing (0.005mm)	----	E184	1.0	%	<1.0	<1.0	0	Diff <2x LOR	----
		Passing (0.020mm)	----	E184	1.0	%	1.4	1.1	0.3	Diff <2x LOR	----
		Passing (0.0312mm)	----	E184	1.0	%	2.0	1.8	0.2	Diff <2x LOR	----
Percent Passing (QC Lot: 2244835)											
VA25C5371-001	ACB-2-REP1	Passing (0.05mm)	----	E182	1.0	%	3.0	3.0	0.0	Diff <2x LOR	----
		Passing (0.063mm)	----	E182	1.0	%	3.5	3.6	0.0	Diff <2x LOR	----
		Passing (0.075mm)	----	E182	1.0	%	4.0	4.0	0.0	Diff <2x LOR	----
		Passing (0.125mm)	----	E182	1.0	%	6.0	6.1	0.1	Diff <2x LOR	----
		Passing (0.149mm)	----	E182	1.0	%	7.5	7.6	0.1	Diff <2x LOR	----
		Passing (0.250mm)	----	E182	1.0	%	13.9	14.0	0.349%	15%	----
		Passing (0.420mm)	----	E182	1.0	%	31.2	31.6	1.11%	15%	----
		Passing (0.50mm)	----	E182	1.0	%	39.3	39.8	1.24%	15%	----
		Passing (0.841mm)	----	E182	1.0	%	63.8	64.2	0.730%	15%	----
		Passing (1.0mm)	----	E182	1.0	%	75.2	75.6	0.606%	15%	----
Organic / Inorganic Carbon (QC Lot: 2249497)											
EO2508581-073	Anonymous	Carbon, inorganic [IC]	----	E354	0.050	%	0.056	0.056	0.0007	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2251438)											
EO2508743-001	Anonymous	Carbon, total [TC]	----	E351	0.050	%	2.54	2.62	3.09%	20%	----
Metals (QC Lot: 2248875)											
VA25C5371-001	ACB-2-REP1	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	Diff <2x LOR	----
Metals (QC Lot: 2248876)											
VA25C5371-001	ACB-2-REP1	Aluminum	7429-90-5	E440	50	mg/kg	15400	13600	12.6%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	1.03	0.96	7.15%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	10.2	9.60	6.48%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	102	95.6	6.42%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.33	0.31	0.02	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Metals (QC Lot: 2248876) - continued											
VA25C5371-001	ACB-2-REP1	Bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.119	0.129	0.010	Diff <2x LOR	----
		Calcium	7440-70-2	E440	50	mg/kg	6890	6430	6.90%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	10.6	6.04	55.2%	30%	DUP-H
		Cobalt	7440-48-4	E440	0.10	mg/kg	7.15	6.14	15.3%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	13.6	14.1	3.20%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	22900	20200	12.4%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	6.19	6.00	3.04%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	13.9	12.9	7.90%	30%	----
		Magnesium	7439-95-4	E440	20	mg/kg	7120	6430	10.3%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	670	647	3.53%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	0.42	0.42	0.0002	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.50	mg/kg	5.43	4.04	29.4%	30%	----
		Phosphorus	7723-14-0	E440	50	mg/kg	576	513	11.6%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	1160	970	17.9%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Sodium	7440-23-5	E440	50	mg/kg	131	119	12	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	53.9	50.9	5.85%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Titanium	7440-32-6	E440	1.0	mg/kg	771	640	18.5%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.050	mg/kg	0.763	0.764	0.158%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	55.2	45.0	20.2%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	52.8	46.4	12.9%	30%	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	4.1	4.1	0.04	Diff <2x LOR	----

Qualifiers

Qualifier	*Description*
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Method Blank (MB) Report

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

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2262452)						
Ash free dry weight	----	E137	0.001	g/sample	<0.0010	----
Ash weight	----	E137	0.001	g/sample	<0.0010	----
Weight, dry	----	E137	0.001	g/sample	<0.0010	----
Physical Tests (QCLot: 2262453)						
Ash free dry weight	----	E137	0.001	g/sample	<0.0010	----
Ash weight	----	E137	0.001	g/sample	<0.0010	----
Weight, dry	----	E137	0.001	g/sample	<0.0010	----
Plant Pigments (QCLot: 2248784)						
Chlorophyll a	479-61-8	E870	0.01	µg	<0.010	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 2249497)						
Carbon, inorganic [IC]	----	E354	0.05	%	<0.050	----
Organic / Inorganic Carbon (QCLot: 2251438)						
Carbon, total [TC]	----	E351	0.05	%	<0.050	----
Metals (QCLot: 2248875)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 2248876)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	----
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
Bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
Boron	7440-42-8	E440	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
Calcium	7440-70-2	E440	50	mg/kg	<50	----
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2248876) - continued						
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Lithium	7439-93-2	E440	2	mg/kg	<2.0	----
Magnesium	7439-95-4	E440	20	mg/kg	<20	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Phosphorus	7723-14-0	E440	50	mg/kg	<50	----
Potassium	7440-09-7	E440	100	mg/kg	<100	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E440	50	mg/kg	<50	----
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	----
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Titanium	7440-32-6	E440	1	mg/kg	<1.0	----
Tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Zirconium	7440-67-7	E440	1	mg/kg	<1.0	----

Laboratory Control Sample (LCS) Report

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

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2262452)									
Ash free dry weight	----	E137	0.001	g/sample	0.04 g/sample	91.6	70.0	130	----
Ash weight	----	E137	0.001	g/sample	0.074 g/sample	106	70.0	130	----
Weight, dry	----	E137	0.001	g/sample	0.115 g/sample	101	70.0	130	----
Physical Tests (QCLot: 2262453)									
Ash free dry weight	----	E137	0.001	g/sample	0.04 g/sample	90.9	70.0	130	----
Ash weight	----	E137	0.001	g/sample	0.074 g/sample	106	70.0	130	----
Weight, dry	----	E137	0.001	g/sample	0.115 g/sample	101	70.0	130	----
Plant Pigments (QCLot: 2248784)									
Chlorophyll a	479-61-8	E870	0.01	µg	1 µg	89.1	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2248877)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Organic / Inorganic Carbon (QCLot: 2249497)									
Carbon, inorganic [IC]	----	E354	0.05	%	0.5 %	94.3	90.0	110	----
Organic / Inorganic Carbon (QCLot: 2251438)									
Carbon, total [TC]	----	E351	0.05	%	48 %	101	90.0	110	----
Metals (QCLot: 2248875)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	97.4	80.0	120	----
Metals (QCLot: 2248876)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	110	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	111	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	110	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	111	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	104	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	100	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	102	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2248876) - continued									
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	105	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	102	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	106	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	106	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	107	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	107	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	105	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	107	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	109	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	106	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	109	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	107	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	113	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	109	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	107	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	103	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	109	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	111	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	109	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	101	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	105	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	106	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	102	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	108	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	109	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	106	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	120	80.0	120	----

Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Percent Passing (QCLot: 2244833)									
QC-2244833-001	RM	Passing (0.002mm)	----	E184	22.5 %	107	74.1	126	----
QC-2244833-001	RM	Passing (0.004mm)	----	E184	25.1 %	106	76.8	123	----
QC-2244833-001	RM	Passing (0.005mm)	----	E184	26.5 %	105	77.9	122	----
QC-2244833-001	RM	Passing (0.020mm)	----	E184	41.8 %	99.0	85.8	114	----
QC-2244833-001	RM	Passing (0.0312mm)	----	E184	45.6 %	103	88.0	112	----
Percent Passing (QCLot: 2244834)									
QC-2244834-001	RM	Passing (19mm)	----	E181	100 %	100	90.0	110	----
QC-2244834-001	RM	Passing (2.0mm)	----	E181	100 %	100	90.0	110	----
QC-2244834-001	RM	Passing (25.4mm)	----	E181	100 %	100	90.0	110	----
QC-2244834-001	RM	Passing (38.1mm)	----	E181	100 %	100	90.0	110	----
QC-2244834-001	RM	Passing (4.75mm)	----	E181	100 %	100	90.0	110	----
QC-2244834-001	RM	Passing (50.8mm)	----	E181	100 %	100	90.0	110	----
QC-2244834-001	RM	Passing (76.2mm)	----	E181	100 %	100	90.0	110	----
QC-2244834-001	RM	Passing (9.5mm)	----	E181	100 %	100	90.0	110	----
Percent Passing (QCLot: 2244835)									
QC-2244835-001	RM	Passing (0.05mm)	----	E182	54.1 %	104	90.0	110	----
QC-2244835-001	RM	Passing (0.063mm)	----	E182	57.1 %	102	90.8	109	----
QC-2244835-001	RM	Passing (0.075mm)	----	E182	60.2 %	101	91.4	109	----
QC-2244835-001	RM	Passing (0.125mm)	----	E182	68.2 %	103	92.7	107	----
QC-2244835-001	RM	Passing (0.149mm)	----	E182	72 %	101	93.1	107	----
QC-2244835-001	RM	Passing (0.250mm)	----	E182	82.3 %	101	94.1	106	----
QC-2244835-001	RM	Passing (0.420mm)	----	E182	89.9 %	99.5	94.6	105	----
QC-2244835-001	RM	Passing (0.50mm)	----	E182	91.2 %	101	94.7	105	----
QC-2244835-001	RM	Passing (0.841mm)	----	E182	95.6 %	100	94.9	105	----
QC-2244835-001	RM	Passing (1.0mm)	----	E182	96.3 %	101	94.9	105	----
Organic / Inorganic Carbon (QCLot: 2249497)									
QC-2249497-003	RM	Carbon, inorganic [IC]	----	E354	0.383 %	94.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2251438)									
QC-2251438-003	RM	Carbon, total [TC]	----	E351	1.4 %	100	80.0	120	----
Metals (QCLot: 2248875)									
QC-2248875-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	101	70.0	130	----
Metals (QCLot: 2248876)									

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%) Low	Recovery Limits (%) High	Qualifier
Metals (QCLot: 2248876) - continued									
QC-2248876-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	110	70.0	130	----
QC-2248876-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	104	70.0	130	----
QC-2248876-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	100	70.0	130	----
QC-2248876-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	102	70.0	130	----
QC-2248876-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	114	70.0	130	----
QC-2248876-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	103	70.0	130	----
QC-2248876-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	108	70.0	130	----
QC-2248876-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	107	70.0	130	----
QC-2248876-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	104	70.0	130	----
QC-2248876-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	105	70.0	130	----
QC-2248876-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	104	70.0	130	----
QC-2248876-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	106	70.0	130	----
QC-2248876-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	100	70.0	130	----
QC-2248876-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	116	70.0	130	----
QC-2248876-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	107	70.0	130	----
QC-2248876-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	102	70.0	130	----
QC-2248876-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	102	70.0	130	----
QC-2248876-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	105	70.0	130	----
QC-2248876-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	121	70.0	130	----
QC-2248876-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	106	70.0	130	----
QC-2248876-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	108	60.0	140	----
QC-2248876-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	102	70.0	130	----
QC-2248876-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	115	70.0	130	----
QC-2248876-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	105	70.0	130	----
QC-2248876-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	118	50.0	150	----
QC-2248876-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	106	70.0	130	----
QC-2248876-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	106	40.0	160	----
QC-2248876-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	109	70.0	130	----
QC-2248876-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	122	70.0	130	----
QC-2248876-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	117	70.0	130	----
QC-2248876-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	107	70.0	130	----
QC-2248876-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	104	70.0	130	----
QC-2248876-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	111	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 23 - 1161828

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Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division
Vancouver
Work Order Reference
VA25C5371

Telephone : +1 604 253 4188

Report To	Contact and company name below will appear on the final report
Company:	Hatfield Consultants
Contact:	Ben Beal
Phone:	
	Company address below will appear on the final report
Street:	200-850 Harbourside Dr.
City/Province:	North Vancouver, BC
Postal Code:	V7P 0A3
Invoice To	Same as Report To ☒ YES ☐ NO
	Copy of Invoice with Report ☒ YES ☐ NO
Company:	
Contact:	

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Invoice Recipients	
Select Invoice Distribution:	☒ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounting-canada@hatfieldgroup.com
Email 2	

Turnaround Time (TAT) Requested
☒ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge min
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge mi
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge mi
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge mi
☐ Same day [E2] if received by 10am M-S - 200% rush surcha
Additional fees may apply to rush requests on we
Date and Time Required for all E&P TATs:
For all tests with rush TATs requested, pl

Project Information		Oil and Gas Required Fields (client use)	
ALS Client Code / QUOTE #:	VA25-HATF100-011	AFE/Cost Center:	PO#
Job / Project #:	KEM12954	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):		ALS Contact:	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Analysis: Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P)			SAMPLES ON HOLD	EXTENDED STORAGE REQU	SUSPECTED HAZARD (see n
						TOC	Total metals	Particle Size			
	ACB-2 - Rep 1	18 Sep 25	1419	Sediment	2	R	R	R			
	ACB-2 Rep 2	18 Sep 25	1422	Sediment	2	R	R	R			
	ACB-2 Rep 3	18 Sep 25	1425	Sediment	2	R	R	R			

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☒ NO	attn: Mr. Brent Mack
Are samples for human consumption/ use? ☐ YES ☒ NO	

SAMPLE RECEIPT DETAILS

☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Cooling Me... ...nts identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Cus...tody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

...TIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	11, 9, 10, 6, 6, 8

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: M. Davies	Date: 20 Sept 2025	Time:	Received by: TD	Date: 09/21/2025	Time: 1130	Received by:	Date: 23/09	Time: 11:50

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AXG 2020 FRONT

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 23 - 1161831

Page 5 of 6

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Hatfield Consultants	Select Report Format: ☒ PDF ☒ EXCEL ☒ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ben Beall	Merge QC/QCI Reports with COA ☒ YES ☐ NO ☐ N/A	☐ 1 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:		☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
	Company address below will appear on the final report	Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	200 - 850 Harbourside Dr.	Email 1 or Fax bbeall@hatfieldgroup.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	North Vancouver, BC	Email 2 kerness@enviro@clenterragold.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	V7P 0A3	Email 3	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☒ YES ☐ NO	Invoice Recipients	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm
	Copy of Invoice with Report ☒ YES ☐ NO	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.
Company:		Email 1 or Fax accounting-canada@hatfieldgroup.com	
Contact:		Email 2	

Project Information		Oil and Gas Required Fields (client use)	
ALS Client Code / QUOTE #:	VA25-HATF100-011	AFE/Cost Center:	PO#
Job / Project #:	KEM12954	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):		ALS Contact:	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Chl. A	AFDW	Tissue metals	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	ACB-2 Rep 1	18-Sep-25	1520	Periphyton	1		X				
	ACB-2 Rep 2	18-Sep-25	1520		1		X				
	ACB-2 Rep 3	18-Sep-25	1531		1		X				
	ACB-2 Rep 4	18-Sep-25	1531		1		X				
	ACB-2 Rep 5	18-Sep-25	1539		1		X				
	ACB-2 Rep 1	18-Sep-25	1515		1	X					
	ACB-2 Rep 2	18-Sep-25	1516		1	X					
	ACB-2 Rep 3	18-Sep-25	1527		1	X					
	ACB-2 Rep 4	18-Sep-25	1527		1	X					
	ACB-2 Rep 5	18-Sep-25	1535		1	X					
		18Sep25	1542		1			X			
		19Sep25	1130	Benthos	1			X			

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☒ NO	Attn: Mr. Brent Mack
Are samples for human consumption/ use? ☐ YES ☒ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
4.1					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: M. Davies	Date: 20 Sept 2025	Time:	Received by: TD	Date: 09/21/2025	Time: 1130	Received by:	Date:	Time:

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

COC Number: 20 -

Page 6 of 6

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Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Hatfield Consultants	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Adrienne Trac / Ben Beall	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	6043302441	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	200 - 850 Harbourside Drive	Email 1 or Fax bbeall@hatfieldgroup.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	North Vancouver, BC	Email 2 atrac@hatfieldgroup.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests
Postal Code:	V7P 0A3	Email 3 KernessEnviro@centerragold.com	
Invoice To	Same as Report To ☑ YES ☐ NO	**Invoice Recipients**	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm
	Copy of Invoice with Report ☑ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.
Company:		Email 1 or Fax accounting-canada@hatfieldgroup.com	
Contact:		Email 2 atrac@hatfieldgroup.com	

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	KEM12954	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only): | ALS Contact: Brent Mack | Sampler: Hatfield

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Chl-a	AFDW	Tissue metals	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	WQ-14F Rep 1	19-Sep-25	1100	Periphyton	2	R	R	R			
	WQ-14F Rep 2	"	"	Tissue	2	R	R				
	WQ-14F Rep 3	"	"	Tissue	2	R	R				
	WQ-14F Rep 4	"	"	Tissue	2	R	R				
	WQ-14F Rep 5	"	"	Tissue	2	R	R				
				Tissue	1			R			
				Tissue							
				Tissue							
				Tissue							
				Tissue							
				Tissue							
				Tissue							

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
-1							

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date:	Time:	Received by: TO	Date: 09/21/2025	Time: 4:30	Received by:	Date:	Time:

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Appendix A4

Benthic Invertebrates

Table A4.1 Abundance of benthic taxa, in individuals per 3 minute kick-net sample (lotic stations) or Ekman grab (lentic stations), in Attichika and Waste Rock creeks, 2025.

Phylum	Order	Family	Class	EEM-13			EEM-17			ATT-IDZ			EEM-18			LREF-1	WRC-BP	WQ-14F	WQ-14ds	WRC-5	ATWL-1A	ATWL-1B	ATWL-3
				Rep. 1	Rep. 2	Rep. 3	Rep. 1	Rep. 2	Rep. 3	Rep. 1	Rep. 2	Rep. 3	Rep. 1	Rep. 2	Rep. 3								
Annelida	Hirudinida	Erpobdellidae		0	0	0	0	0	0	0	0	0	0	0	0	8.3	0	0	0	0	0	0	0
Annelida	Hirudinida	Glossiphoniidae		0	0	0	0	0	0	0	0	0	0	0	0	8.7	0	0	0	0	0	0	0
Annelida	Hirudinida			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	0
Annelida	Lumbriculida	Lumbriculidae	Oligochaeta	0	0	0	0	0	0	0	0	0	0	0	0	39	11	0	0	0	0	3.0	28
Annelida	Tubificida	Enchytraeidae	Oligochaeta	0	0	0	0	11	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0
Annelida	Tubificida	Naididae	Oligochaeta	0	0	0	0	0	0	0	0	0	0	0	0	69	11	38	0	0	207	34	853
Arthropoda	Amphipoda	Gammaridae	Malacostraca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.4	3.0	0
Arthropoda	Amphipoda		Malacostraca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2.0	0
Arthropoda	Coleoptera	Dytiscidae	Insecta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	0
Arthropoda	Coleoptera	Elmidae	Insecta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arthropoda	Diptera	Ceratopogonidae	Insecta	32	38	47	63	33	44	20	0	0	31	13	0	13	33	0	0	0	0	0	11
Arthropoda	Diptera	Chironomidae	Insecta	676	592	1167	1113	1644	1388	1410	1491	6460	285	263	775	2380	3356	2638	150	175	852	55	197
Arthropoda	Diptera	Empididae	Insecta	4.0	0	0	13	33	13	0	27	40	7.7	6.3	38	0	0	25	0	25	0	0	0
Arthropoda	Diptera	Limoniidae	Insecta	4.0	3.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.0	0
Arthropoda	Diptera	Oreoleptidae	Insecta	0	0	0	0	0	0	0	0	0	7.7	0	0	0	0	0	0	0	0	0	0
Arthropoda	Diptera	Pediciidae	Insecta	0	0	0	0	0	0	0	0	0	7.7	0	0	0	0	0	0	0	0	0	0
Arthropoda	Diptera	Psychodidae	Insecta	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arthropoda	Diptera	Simuliidae	Insecta	0	0	0	25	0	0	30	0	0	0	0	0	0	0	0	40	50	0	0	0
Arthropoda	Diptera	Tabanidae	Insecta	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	17
Arthropoda	Diptera	Tipulidae	Insecta	12	3.8	13	88	56	31	10	27	80	54	44	13	0	0	13	0	0	0	0	2.8
Arthropoda	Diptera		Insecta	0	0	6.7	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arthropoda	Ephemeroptera	Ameletidae	Insecta	40	7.7	13	0	22	0	20	45	0	15	0	0	0	0	0	10	288	0	0	0
Arthropoda	Ephemeroptera	Baetidae	Insecta	12	23	100	500	289	0	470	391	240	192	238	150	21	11	25	850	863	0	0	0
Arthropoda	Ephemeroptera	Ephemerellidae	Insecta	52	73	107	288	289	150	170	118	360	277	219	563	0	0	25	380	275	0	0	0
Arthropoda	Ephemeroptera	Heptageniidae	Insecta	132	254	393	675	222	44	530	345	380	731	525	1238	0	0	25	320	363	0	0	0
Arthropoda	Ephemeroptera	Leptophlebiidae	Insecta	24	0	0	0	11	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
Arthropoda	Homoptera	Cicadellidae	Insecta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.3
Arthropoda	Oribatida		Arachnida	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
Arthropoda	Plecoptera	Capniidae	Insecta	32	23	53	25	56	38	80	109	40	177	113	88	0	0	225	160	75	0	0	0
Arthropoda	Plecoptera	Chloroperlidae	Insecta	112	69	73	50	56	63	120	109	120	162	125	88	0	0	63	50	213	0	0	0
Arthropoda	Plecoptera	Leuctridae	Insecta	0	0	0	50	0	0	70	0	0	8	0	0	0	0	0	0	0	0	0	0
Arthropoda	Plecoptera	Nemouridae	Insecta	4.0	15	20	188	122	13	220	73	120	115	44	150	0	0	163	1130	1125	3	0	2.8
Arthropoda	Plecoptera	Peltoperlidae	Insecta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	0
Arthropoda	Plecoptera	Perlidae	Insecta	0	3.8	20	13	11	0	10	9.1	20	38	6.3	13	0	0	0	0	0	0	0	0
Arthropoda	Plecoptera	Perlodidae	Insecta	12	7.7	47	25	33	6.3	50	9.1	20	77	44	75	0	0	25	20	13	0	0	0
Arthropoda	Plecoptera	Taeniopterygidae	Insecta	0	0	0	138	22	6.3	80	55	60	85	113	125	0	0	13	360	275	0	0	2.8
Arthropoda	Plecoptera		Insecta	0	0	13	63	11	13	140	55	60	38	69	50	0	0	13	50	50	0	0	0
Arthropoda	Sarcoptiformes	Hydrozetidae	Arachnida	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Arthropoda	Trichoptera	Apataniidae	Insecta	0	0	0	0	0	6.3	0	9.1	0	0	0	0	0	0	0	0	0	0	0	0

Table A4.1 (Cont'd.)

Phylum	Order	Family	Class	EEM-13			EEM-17			ATT-IDZ			EEM-18			LREF-1	WRC-BP	WQ-14F	WQ-14ds	WRC-5	ATWL-1A	ATWL-1B	ATWL-3
				Rep. 1	Rep. 2	Rep. 3	Rep. 1	Rep. 2	Rep. 3	Rep. 1	Rep. 2	Rep. 3	Rep. 1	Rep. 2	Rep. 3								
Arthropoda	Trichoptera	Brachycentridae	Insecta	4.0	3.8	33	188	156	6.3	160	27	100	23	131	138	0	0	0	0	0	0	0	0
Arthropoda	Trichoptera	Glossosomatidae	Insecta	0	0	20	300	289	0	20	27	0	46	50	375	0	0	0	0	13	0	0	0
Arthropoda	Trichoptera	Hydropsychidae	Insecta	4.0	3.8	0	100	67	0	10	9.1	40	15	0	38	0	0	0	20	0	0	0	0
Arthropoda	Trichoptera	Hydroptilidae	Insecta	16	7.7	13	0	22	13	0	0	0	0	0	13	0	0	0	0	0	0	0	0
Arthropoda	Trichoptera	Lepidostomatidae	Insecta	16	3.8	0	0	0	0	0	0	0	0	0	0	0	0	238	0	0	0	0	0
Arthropoda	Trichoptera	Limnephilidae	Insecta	0	3.8	0	0	0	0	0	0	0	15	0	0	4.3	0	25	10	13	0	2.0	0
Arthropoda	Trichoptera	Phryganeidae	Insecta	0	0	0	0	0	0	0	0	0	0	0	0	4.3	0	0	0	0	0	0	0
Arthropoda	Trichoptera	Rhyacophilidae	Insecta	4	15	13	13	11	6	20	0	0	31	25	100	0	0	125	150	188	0	0	0
Arthropoda	Trichoptera	Thremmatidae	Insecta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	10	0	0	0	0
Arthropoda	Trichoptera		Insecta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arthropoda	Trombidiformes	Aturidae	Arachnida	0	3.8	0	0	0	0	0	0	40	7.7	0	0	0	0	0	0	0	0	0	0
Arthropoda	Trombidiformes	Feltriidae	Arachnida	0	7.7	0	0	0	6.3	0	0	0	0	0	13	0	0	0	0	0	0	0	0
Arthropoda	Trombidiformes	Hygrobatidae	Arachnida	76	54	0	13	56	50	0	0	0	0	0	13	0	0	63	0	13	0	0	0
Arthropoda	Trombidiformes	Lebertiidae	Arachnida	0	12	0	0	22	31	0	9.1	20	77	25	50	0	0	63	0	0	0	0	0
Arthropoda	Trombidiformes	Limnesiidae	Arachnida	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.4	5.0	0
Arthropoda	Trombidiformes	Oxidae	Arachnida	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	2.8
Arthropoda	Trombidiformes	Sperchontidae	Arachnida	8.0	0	6.7	0	22	6.3	0	9.1	20	0	0	25	0	0	313	10	38	0	0	0
Arthropoda	Trombidiformes	Stygothrombidiidae	Arachnida	0	0	0	13	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arthropoda	Trombidiformes	Torrenticolidae	Arachnida	0	0	0	25	33	0	0	0	0	8	13	13	0	0	88	30	38	0	0	2.8
Arthropoda	Trombidiformes		Arachnida	12	0	13	0	11	13	0	0	0	0	0	0	0	0	13	10	0	0	0	0
Mollusca	Basommatophora	Lymnaeidae	Gastropoda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	0
Mollusca	Heterostropha	Valvatidae	Gastropoda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.0	8.3
Mollusca	Veneroida	Pisidiidae	Bivalvia	0	0	0	0	0	0	0	0	0	0	0	0	267	100	25	0	0	59	22	11
Mollusca			Gastropoda	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A4.2 Summary of benthic invertebrate community metrics in Attichika and Waste Rock creeks, 2025.

Station	Replicate	Abundance	Evenness	Simpsons Diversity Index	Taxa Richness
EEM-13	Rep 1	1,288	0.15	0.70	22
EEM-13	Rep 2	1,231	0.15	0.71	23
EEM-13	Rep 3	2,173	0.15	0.67	20
EEM-17	Rep 1	3,963	0.30	0.86	23
EEM-17	Rep 2	3,622	0.15	0.77	28
EEM-17	Rep 3	1,963	0.08	0.49	24
ATT-IDZ	Rep 1	3,640	0.25	0.80	20
ATT-IDZ	Rep 2	2,964	0.16	0.71	21
ATT-IDZ	Rep 3	8,220	0.09	0.38	18
EEM-18	Rep 1	2,531	0.30	0.87	26
EEM-18	Rep 2	2,063	0.43	0.88	19
EEM-18	Rep 3	4,138	0.27	0.84	23
LREF-1		2,815	0.14	0.28	20
WRC-BP		2,815	0.14	0.10	7
WQ-14F		4,425	0.11	0.63	24
WQ-14ds		3,760	0.30	0.83	19
WRC-5		4,088	0.35	0.85	19
ATWL-1A		1,138	0.24	0.40	7
ATWL-1B		139	0.27	0.75	15
ATWL-1B		1,158	0.12	0.43	14

Table A4.3 Benthic taxa excluded from community analysis and justification.

Taxon	Justification for Exclusion
Arachnida (Class); all non-mites	▪ terrestrial / semi-aquatic
Arachnida (Class): Acari (Subclass)	▪ parasitic, rarely eaten by fish or other organisms ▪ tend to be underrepresented in samples
Branchiopoda (Class)	▪ pelagic / planktonic, ubiquitous ▪ tiny and prone to clumping
Cnidaria (Phylum)	▪ ubiquitous, sedentary, can be colonial ▪ easily damaged by preservation, counts can be unreliable
Collembola (Order)	▪ semi-aquatic
Copepoda (Class)	▪ not adequately sampled with kicknet ▪ can be found in extremely high numbers
Diptera (Order): Cecidomyiidae (Family)	▪ terrestrial
Oligochaeta (Class): Lumbricidae (Family)	▪ terrestrial
Platyhelminthes (Phylum)	▪ ubiquitous, often very highly abundant ▪ easily damaged by preservation, counts can be unreliable ▪ not adequately sampled with kick net
Nematoda (Phylum)	▪ difficult to identify, wide range of sizes, counts can be unreliable ▪ many are parasitic on other invertebrates and fish ▪ not adequately sampled with kick net ▪ potentially the most abundant invertebrate in freshwater
Ostracoda (Class)	▪ ubiquitous microfauna ▪ difficult to count, easily underreported ▪ not adequately sampled with kick net

Table A4.4 GIS predictor variables for the Peace River (2019) CABIN Model.

Station	Topography Slope30-50% %	Surficial Geology Glac_Sed_Blanket %	Climate PrecipTotal_ANNUAL mm	Climate Precip05_MAY mm	Climate Temp02_FEBmin Degrees Celsius
WQ-EDD	2.52	0.15	596.22	45.07	-15.90
WR-S4	0.00	100.00	571.37	43.15	-15.56
WQ-WCSP	4.05	4.39	603.03	45.19	-15.92
WQ-14F	3.19	13.01	595.13	44.76	-15.85
WQ-14ds	3.05	16.93	593.43	44.65	-15.83
WRC-3	3.05	16.93	593.43	44.65	-15.83
WRC-5	3.05	16.93	593.43	44.65	-15.83
EEM-13	12.99	61.91	633.94	47.18	-15.88
EEM-17	15.38	51.36	634.33	47.27	-16.00
ATT-IDZ	15.37	51.46	634.18	47.27	-16.00
EEM-18	15.08	51.22	633.20	47.20	-16.00

Field Crew: B. Beall, C. Maichle Site: EEM-13

Sampling Date (D/M/Y): 10/09/2025

Primary Site Data Project: Kem 12954

Local Basin name: Finlay River watershed

River/Stream Name: Atchika Creek Stream Order (map scale 1:50,000): 3rd order

☒ Reference Area Site ☐ Exposure Area Site

Geographical description/notes:

From Kemess gate, take left on ORA Road & drive to KM 160. Just before the bridge, turn right into parking area along the river. Cross to access CABIN staging area along gravel bank.

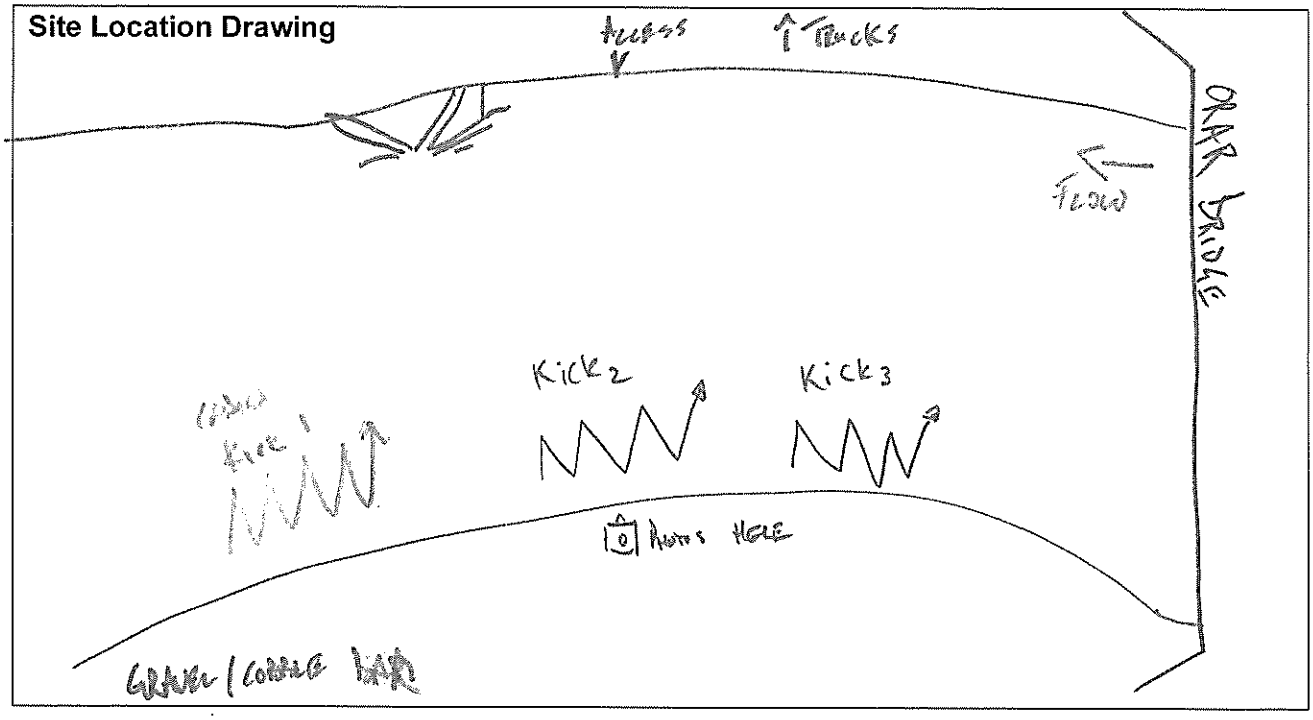
Surrounding Land Use (check those present and circle dominant)

☑ Forest ☐ Field/Pasture ☐ Agriculture ☐ Residential/Urban
☐ Logging ☐ Mining ☐ Commercial/Industrial ☐ Other _____

Location Data

UTM E: _____ UTM N: _____ Elevation: _____ (masl)

Site Location Drawing



Photos

field sheet ☒ upstream ☒ downstream ☒ across site ☒ aerial view ☒
substrate (exposed bar) ☒ substrate (aquatic) ☒ miscellaneous _____ ☐

Field Crew B. Beall, C. Maichle Site EEM-13

Sampling Date (D/M/Y) 10/09/2025

Sample Area Data *(represents 6x bankfull width)*

1. Habitat types present in reach *(check all present)*:
☒ riffle ☐ rapids ☒ straight run ☐ pool/back eddy

2. Canopy Cover *(approximate shaded percentage over kick area)*:
☐ 0% ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

3. Macrophyte Cover:
☒ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

4. Bryophyte Cover *(wetted in-stream rocks, not on shore or bank)*:
☐ 0% ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

5. Streamside Vegetation *(check all present)*:
☒ ferns/grasses ☒ shrubs ☐ deciduous trees ☒ coniferous trees

6. Dominant Streamside Vegetation *(check one)*:
☒ ferns/grasses ☐ shrubs ☐ deciduous trees ☐ coniferous trees

7. Periphyton Coverage on Substrate *(benthic algae; check one)*
☒ **1** – substrate slimy, no obvious colour (**thin layer < 0.5 mm thick**)
☐ **2** - yellow-brown to light green colour (**0.5-1 mm thick**)
☒ **3 - patches** of thicker green to brown algae **(1-5 mm thick)**
☐ **4 - numerous large clumps** of green to dark brown algae **(5 mm - 2 cm thick)**
☐ **5** - Rocks mostly obscured by **algal mat**, extensive green, brown to black algal mass may have **long strands (> 2 cm thick)**

Benthic Invertebrate Samples

Habitat(s) sampled: ☒ riffle ☐ straight run

Mesh size:	<400µm	400µm	500µm
Person sampling	CM		
Sampling time (i.e. 3 min)	3 min		
No. of sample jars	3 min 1 per kick		
Typical depth (in kick area)			

Preservative: ☐ Formalin ☐ Ethanol

"Bucket Swirling Method" to elutriate? YES ☐ NO ☐
If yes, sediment retained for QA/QC? YES ☐ NO ☐

Sample Notes:

Widths

Location EEM-13 → kick 3 *(station/rep)*

A. **Bankfull Width** 22.4 (m) B. **Wetted Width:** 13.6 (m)

C. **Bankfull–Wetted Depth**
☒ Measuring stick: water surface to bankfull tape or line 60 (cm)

Field Crew B. Beall, C. Maichle Site EEM-13

Sampling Date (D/M/Y) 10/09/2025

SUBSTRATE DATA

Surrounding/Interstitial Material:
Indicate substrate size category for surrounding material ~~2~~ 3

SUBSTRATE SIZE CLASS	CATEGORY
organic cover	0
<0.1 cm (silt/clay)	1
0.1-0.2 cm (sand)	2
0.2-1.6 cm (gravel)	3
1.6-3.2 cm (pebble)	4
3.2-6.4 cm (pebble)	5
6.4-12.8 cm (cobble)	6
12.8-25.6 cm (cobble)	7
>25.6 cm (boulder)	8
bedrock	9

100 Pebble Count & Embeddedness of the armour layer of the stream bed

Measure the intermediate axis & the depth the substrate is buried in the surrounding material
If the site is bedrock, sand (<0.2 cm), or organic material, indicate S, B, or O

E: 1=completely embedded, 3/4 embedded, 1/2 embedded, 1/4 embedded, 0=unembedded

	Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E
1	2.9		26	4.1		51	2.9		76	3.4	
2	3.5		27	2.6		52	1.0		77	3.1	
3	4.9		28	5.0		53	4.6		78	4.3	
4	1.7		29	3.8		54	1.6		79	2.5	
5	4.6		30	1.7	O	55	3.4		80	5.1	1/4
6	4.8		31	4.4		56	1.6		81	1.6	
7	2.2		32	4.7		57	2.7		82	4.2	
8	2.4		33	4.1		58	2.4		83	~~5.7~~ 3.7	
9	3.6		34	3.9		59	3.6		84	2.6	
10	2.6	O	35	1.6		60	1.8	O	85	2.6	
11	2.5		36	2.1		61	4.3		86	3.7	
12	1.7		37	3.1		62	2.1		87	2.6	
13	2.6		38	4.8		63	4.5		88	3.8	
14	4.3		39	6.6		64	1.9		89	4.9	
15	2.2		40	4.0	1/4	65	4.1		90	3.5	O
16	5.3		41	4.4		66	3.0		91	1.3	
17	2.6		42	2.6		67	5.3		92	~~3.1~~ 3.1	
18	3.1		43	6.6		68	4.9		93	4.5	
19	3.7		44	2.6		69	1.1		94	1.1	
20	3.1	O	45	5.9		70	1.7	O	95	2.8	
21	3.8		46	4.0		71	2.7		96	1.7	
22	3.0		47	5.2		72	3.9		97	3.8	
23	3.1		48	2.8		73	3.0		98	2.9	
24	3.1		49	2.2		74	1.2		99	2.3	
25	2.5		50	2.3	O	75	1.9		100	2.2	O

Note: *Dominant size category & subdominant size category based on substrate size class table will be determined in CABIN. Wolman D_{50} (median diameter), Wolman Dg (geometric mean diameter) and the % composition of the substrate classes are also automatically calculated with the 100 pebble measurements entered into CABIN. Median embeddedness score will also be calculated from data entered into CABIN.*

Field Crew B. Beall, C. Maichle Site EEM-13

Sampling Date (D/M/Y) 10/09/2025

Water Chemistry **Time:** 1115 (24hr clock) **Time zone:** PDT

Air Temp (°C) 10°C Water Temp 8.8°C (°C) pH 6.21

Specific Conductance (µs/cm) 97 DO (mg/L) 13 Turbidity (NTU) _____

Check if samples collected:

☐ TSS or TDS

☐ Major Ions (i.e. alkalinity, hardness, Cl, SO4), Nitrogen (i.e. total, nitrate, nitrite, dissolved, ammonia)

☐ Phosphorus (total, ortho, dissolved)

☐ Other_____

Slope (*indicate how slope was measured)*

☐ 1. **Calculated from map** *(small scale map recommended i.e. 1:20,000)*

slope = vertical distance/horizontal distance =_____

☐ 2. **Measured in field** *(circle device and fill out table according to device used: a or b)*

a. survey equipment **b. hand level & measuring tape** **c. clinometer** _____

Measurements	Upstream (US)	Downstream (DS)	Calculation
[a]Top Hairline (T)			
[a]Mid Hairline (ht) OR [b]Height of rod			DS_{ht}-US_{ht}=
[a]Bottom Hairline (B)			
[b]Distance (dis) OR [a]T-B x 100	[a]US_{dis}=T-B	[a]DS_{dis}=T-B	US_{dis}+DS_{dis}=
Slope (Δht/total dis)			

Velocity and Depth	1	2	3	4	5	6	
For wetted widths > 5m, measure a minimum of 5-6 equidistant locations; For wetted widths < 5m, measure 3-4 equidistant locations							
Distance (m) from: Left Bank (Right Bank)	0.5	3.5	7	9	11m		
Depth (**D**) (cm)	5	10	15	15	10		
Depth (flow / stagnation)							
Flow depth (thin side ruler)							
Stagnant (wide side)							
3. Direct Measurement							
Velocity (**V**) (m/s)	0.57	0.74	0.61	0.85	0.56		
	1.74 s	1.35 s	1.65 s	1.18 s	1.78 s		

Field Crew B BEALL C MAICHLE Site EEM-17

Sampling Date (D/M/Y) 13 SEP 2025

Primary Site Data Project: KEMESS 12954 FAEMP

Local Basin name: FINLAY

River/Stream Name: ATTICHIKA CK Stream Order (map scale 1:50,000):

☐ Reference Area Site ☒ Exposure Area Site

Geographical description/notes:
ATTICHIKA CK DOWNSTREAM FROM KEMESS CK
BROAD GRAVEL / COBBLE BAR

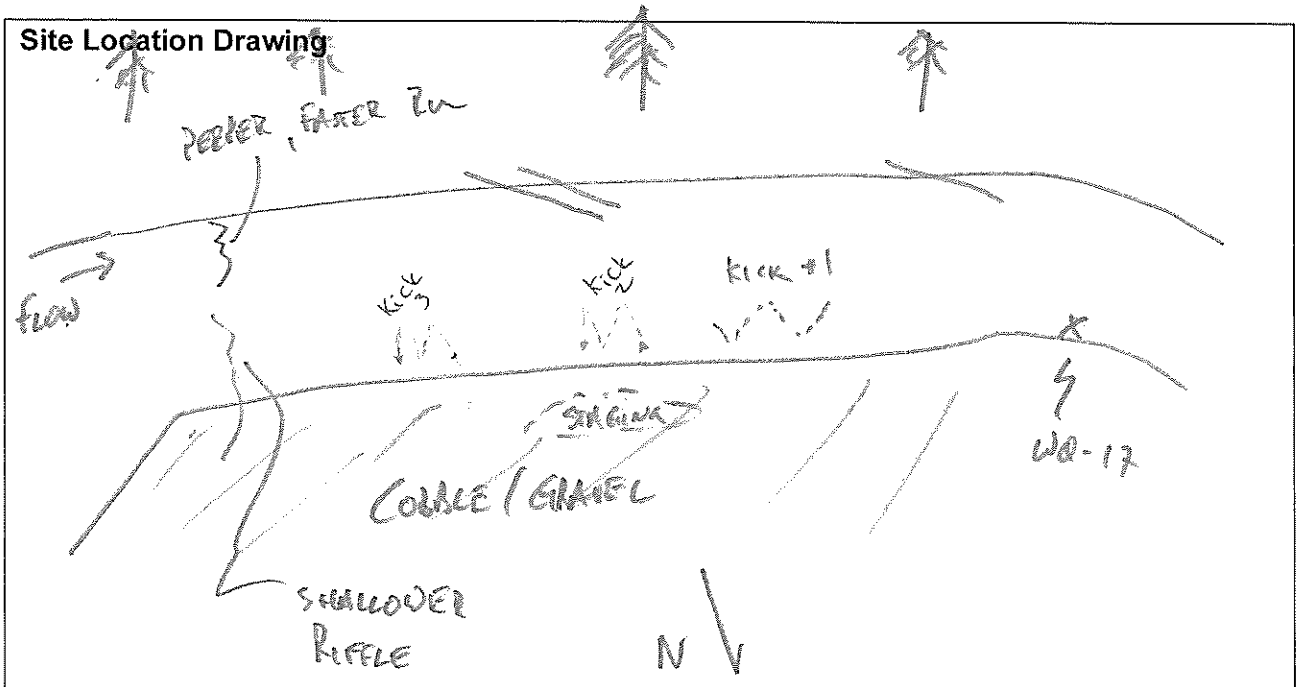
Surrounding Land Use (check those present and circle dominant)

☒ Forest ☐ Field/Pasture ☐ Agriculture ☐ Residential/Urban
☐ Logging ☐ Mining ☐ Commercial/Industrial ☐ Other

Location Data

UTM E: UTM N: Elevation: (masl)

Site Location Drawing



Photos

field sheet ☒ upstream ☒ downstream ☒ across site ☒ aerial view ☒
substrate (exposed bar) ☒ substrate (aquatic) ☒ miscellaneous ☐

Field Crew BB ; Cm Site EEM-17

Sampling Date (D/M/Y) 13 Sep 2025

Sample Area Data *(represents 6x bankfull width)*

1. Habitat types present in reach *(check all present)*:
☒ riffle ☐ rapids ☐ straight run ☐ pool/back eddy

2. Canopy Cover *(approximate shaded percentage over kick area)*:
☒ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

3. Macrophyte Cover:
☒ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

4. Bryophyte Cover *(wetted in-stream rocks, not on shore or bank)*:
☒ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

5. Streamside Vegetation (*check all present):*
☒ ferns/grasses ☒ shrubs ☐ deciduous trees ☒ coniferous trees

6. Dominant Streamside Vegetation *(check one)*:
☒ ferns/grasses ☐ shrubs ☐ deciduous trees ☐ coniferous trees

7. Periphyton Coverage on Substrate *(benthic algae; check one)*
☒ **1** – substrate slimy, no obvious colour (**thin layer < 0.5 mm thick**)
☐ **2** - yellow-brown to light green colour (**0.5-1 mm thick**)
☒ **3 - patches** of thicker green to brown algae **(1-5 mm thick)**
☐ **4 - numerous large clumps** of green to dark brown algae **(5 mm - 2 cm thick)**
☐ **5** - Rocks mostly obscured by **algal mat**, extensive green, brown to black algal mass may have **long strands (> 2 cm thick)**

Benthic Invertebrate Samples

Habitat(s) sampled: ☒ riffle ☐ straight run

Mesh size:	<400µm	400µm	500µm
Person sampling		Cm	
Sampling time (i.e. 3 min)		3 x 3 min	
No. of sample jars			
Typical depth (in kick area)		0-15 cm	

Preservative: ☒ Formalin ☐ Ethanol

"Bucket Swirling Method" to elutriate? YES ☐ NO ☐
If yes, sediment retained for QA/QC? YES ☐ NO ☐

Sample Notes: Kick in triplicate; closer to right bank
2 additional kicks for field-picked bugs

Widths

Location Near singing – Kick 2 *(station/rep)*

A. **Bankfull Width** 26.7 (m) B. **Wetted Width:** 14.5 Range finder (m)

C. **Bankfull–Wetted Depth**
☐ Measuring stick: water surface to bankfull tape or line N/A for (cm)

Field Crew RB cm Site EEm - 17

Sampling Date (D/M/Y) 13 Sep 2025

SUBSTRATE DATA

Surrounding/Interstitial Material:
Indicate substrate size category for surrounding material 2

SUBSTRATE SIZE CLASS	CATEGORY
organic cover	0
<0.1 cm (silt/clay)	1
0.1-0.2 cm (sand)	2
0.2-1.6 cm (gravel)	3
1.6-3.2 cm (pebble)	4
3.2-6.4 cm (pebble)	5
6.4-12.8 cm (cobble)	6
12.8-25.6 cm (cobble)	7
>25.6 cm (boulder)	8
bedrock	9

100 Pebble Count & Embeddedness of the armour layer of the stream bed

Measure the intermediate axis & the depth the substrate is buried in the surrounding material
If the site is bedrock, sand (<0.2 cm), or organic material, indicate S, B, or O

E: 1=completely embedded, 3/4 embedded, 1/2 embedded, 1/4 embedded, 0=unembedded

	Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E
1	9.2		26	3.8		51	5.9		76	6.4	
2	11.3		27	14.2		52	8.9		77	5	
3	10.5		28	11.0		53	8.4		78	3.7	
4	9.2		29	10.6		54	7.8		79	9.6	
5	6.2		30	6.7	0	55	6.4		80	5	—
6	4.7		31	12.6		56	6.9		81	5.2	
7	10.1		32	3.0		57	11.7		82	3.0	
8	5.7		33	21.3		58	11.0		83	8.4	
9	5.5		34	5.2		59	2.1		84	8.3	
10	6.6	0	35	8.9		60	8.3	0	85	11.4	
11	10.8		36	20.2		61	11.6		86	10.1	
12	10.3		37	10.1		62	12.5		87	15.3	
13	10.5		38	9.5		63	3.7		88	6.6	
14	8.7		39	14.3		64	3.4		89	10.7	
15	8.6		40	4.5	1	65	8.2		90	5.2	0
16	10.9		41	9.9		66	2.9		91	5.8	
17	13.8		42	11.3		67	14.7		92	10.9	
18	4.3		43	5.2		68	11.3		93	14.1	
19	9.2		44	19.5		69	10.4		94	5	
20	10.4	0	45	7.7		70	7.2	1/4	95	11.2	
21	6.0		46	10.2		71	8.5		96	10.2	
22	10.7		47	3.6		72	3.5		97	2.1	
23	8.4		48	4.6		73	4.5		98	3.5	
24	7.9		49	~~2~~ 7.7		74	8.6		99	4.9	
25	4.7		50	10.5	0	75	10.2		100	13.2	1/4

Note: *Dominant size category & subdominant size category based on substrate size class table will be determined in CABIN. Wolman D_{50} (median diameter), Wolman Dg (geometric mean diameter) and the % composition of the substrate classes are also automatically calculated with the 100 pebble measurements entered into CABIN. Median embeddedness score will also be calculated from data entered into CABIN.*

Field Crew BB CM Site EGM-17

Sampling Date (D/M/Y) 13 SEP 2025

Water Chemistry **Time:** 0920 (24hr clock) **Time zone:** _____

Air Temp (°C) 11°C Water Temp 8.6 (°C) pH 7.13

Specific Conductance (µs/cm) 147 DO (mg/L) 9.4 Turbidity (NTU) _____

Check if samples collected:

☐ TSS or TDS

☐ Major Ions (i.e. alkalinity, hardness, Cl, SO4), Nitrogen (i.e. total, nitrate, nitrite, dissolved, ammonia)

☐ Phosphorus (total, ortho, dissolved)

☐ Other_____

Slope (*indicate how slope was measured*)

☒ 1. **Calculated from map** *(small scale map recommended i.e. 1:20,000)*

slope = vertical distance/horizontal distance =_____

☐ 2. **Measured in field** (*circle device and fill out table according to device used: a or b*)

a. survey equipment **b. hand level & measuring tape** **c. clinometer** _____

Measurements	Upstream (US)	Downstream (DS)	Calculation
[a]Top Hairline (T)			
[a]Mid Hairline (ht) OR [b]Height of rod			DS_{ht}-US_{ht}=
[a]Bottom Hairline (B)			
[b]Distance (dis) OR [a]T-B x 100	[a]US_{dis}=T-B	[a]DS_{dis}=T-B	US_{dis}+DS_{dis}=
Slope (Δht/total dis)			

Velocity and Depth	1	2	3	4	5	6	
For wetted widths > 5m, measure a minimum of 5-6 equidistant locations; For wetted widths < 5m, measure 3-4 equidistant locations							
Distance (m) from: Left Bank (Right Bank)	1.5	4	8	11			
Depth (**D**) (cm)	15	40	60	60			
Depth (flow / stagnation)							
Flow depth (thin side ruler)							
Stagnant (wide side)							
3. Direct Measurement							
Velocity (**V**) (m/s)	0.40	0.22	0.72	0.89			
	1m in 2.53s	4.47s	1.39s	1.45s			

Field Crew Carol Maichoe, Mia Hargrave Site ATT-IDZ

Sampling Date (D/M/Y) 15/09/2025

Primary Site Data Project: KEM12954

Local Basin name:

River/Stream Name: Athichika Creek Stream Order (map scale 1:50,000):

☐ Reference Area Site ☑ Exposure Area Site

Geographical description/notes:

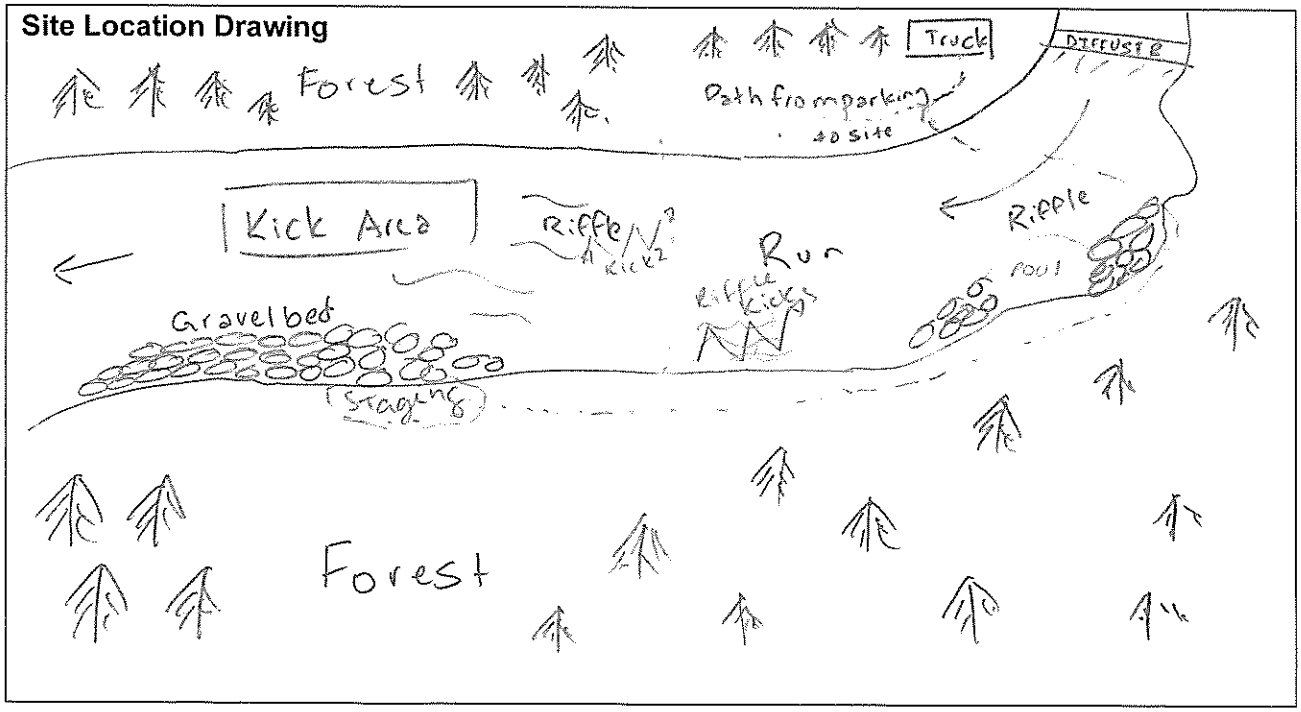
Surrounding Land Use (check those present and circle dominant)

☑ Forest ☐ Field/Pasture ☐ Agriculture ☐ Residential/Urban
☐ Logging ☑ Mining ☐ Commercial/Industrial ☐ Other

Location Data

UTM E: UTM N: Elevation: (masl)

Site Location Drawing



Photos

field sheet ☑ upstream ☑ downstream ☑ across site ☑ aerial view ☐
substrate (exposed bar) ☑ substrate (aquatic) ☑ miscellaneous ☐

Field Crew Carol Maiche, Mia Hargrave Site ATT-IDZ

Sampling Date (D/M/Y) 15/09/2025

Sample Area Data *(represents 6x bankfull width)*

1. Habitat types present in reach *(check all present):*
☑ riffle ☐ rapids ☐ straight run ☐ pool/back eddy

2. Canopy Cover *(approximate shaded percentage over kick area)*:
☐ 0% ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

3. Macrophyte Cover:
☐ 0% ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

4. Bryophyte Cover *(wetted in-stream rocks, not on shore or bank)*:
☐ 0% ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

5. Streamside Vegetation *(check all present):*
☑ ferns/grasses ☑ shrubs ☐ deciduous trees ☑ coniferous trees

6. Dominant Streamside Vegetation *(check one)*:
☐ ferns/grasses ☑ shrubs ☐ deciduous trees ☐ coniferous trees

7. Periphyton Coverage on Substrate *(benthic algae; check one)*
☐ **1** – substrate slimy, no obvious colour (**thin layer < 0.5 mm thick**)
☐ **2** - yellow-brown to light green colour (**0.5-1 mm thick**)
☑ **3** - **patches** of thicker green to brown algae (**1-5 mm thick**)
☐ **4** - **numerous large clumps** of green to dark brown algae (**5 mm - 2 cm thick**)
☐ **5** - Rocks mostly obscured by **algal mat**, extensive green, brown to black algal mass may have **long strands (> 2 cm thick)**

Benthic Invertebrate Samples

Habitat(s) sampled: ☒ riffle ☐ straight run

Mesh size:	<400µm	400µm	500µm
Person sampling	CM		
Sampling time (i.e. 3 min)	3 min		
No. of sample jars	1 per kick (2 kicks)		
Typical depth (in kick area)	15cm		

Preservative: ☐ Formalin ☐ Ethanol

"Bucket Swirling Method" to elutriate? YES ☐ NO ☐
If yes, sediment retained for QA/QC? YES ☐ NO ☐

Sample Notes:

Widths

Location Left Bank of Kick 2 location *(station/rep)*

A. **Bankfull Width** 28.2 (m) B. **Wetted Width:** 20.4 (m)

C. **Bankfull–Wetted Depth**
☐ Measuring stick: water surface to bankfull tape or line _____(cm)

Field Crew Carol Marchoe, Mia Hargrave Site ATT-102

Sampling Date (D/M/Y) 15/09/2025

SUBSTRATE DATA

Surrounding/Interstitial Material:
Indicate substrate size category for surrounding material gravel

SUBSTRATE SIZE CLASS	CATEGORY
organic cover	0
<0.1 cm (silt/clay)	1
0.1-0.2 cm (sand)	2
0.2-1.6 cm (gravel)	3
1.6-3.2 cm (pebble)	4
3.2-6.4 cm (pebble)	5
6.4-12.8 cm (cobble)	6
12.8-25.6 cm (cobble)	7
>25.6 cm (boulder)	8
bedrock	9

100 Pebble Count & Embeddedness of the armour layer of the stream bed

Measure the intermediate axis & the depth the substrate is buried in the surrounding material
If the site is bedrock, sand (<0.2 cm), or organic material, indicate S, B, or O

E: 1=completely embedded, 3/4 embedded, 1/2 embedded, 1/4 embedded, 0=unembedded

	Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E
1	4.5		26	7.4		51	7.3		76	3.0	
2	2.9		27	4.6		52	7.0		77	12.0	
3	4.9		28	3.2		53	16.1		78	7.6	
4	4.2		29	10.6		54	12.0		79	10.6	
5	10.9		(30)	5.4	0	55	7.5		(80)	4.0	0
6	9.7		31	8.4		56	4.7		81	9.4	
7	4.3		32	10.9		57	8.0		82	5.8	
8	4.4		33	5.3		58	7.4		83	3.9	
9	5.9		34	5.6		59	7.0		84	3.5	
(10)	7.5	0	35	6.2		(60)	4.6	0	85	6.7	
11	5.3		36	5.0		61	11.6		86	9.3	
12	4.7		37	6.9		62	8.3		87	5.7	
13	7.1		38	4.6		63	7.4		88	2.4	
14	4.8		39	9.1		64	7.7		89	6.0	
15	7.9		(40)	3.9	0	65	8.7		(90)	10.6	0
16	9.4		41	3.7		66	5.2		91	5.4	
17	6.2		42	5.3		67	13.2		92	3.3	
18	8.5		43	6.5		68	5.2		93	9.0	
19	6.6		44	4.9		69	10.8		94	7.2	
(20)	2.9	0	45	13.9		70	4.5	1/4	95	6.6	
21	3.5		46	8.2		71	6.1		96	5.8	
22	7.1		47	12.6		72	5.0		97	7.9	
23	1.4		48	9.9		73	8.4		98	4.2	
24	4.6		49	7.8		74	7.1		99	6.4	
25	3.2		(50)	5.1	0	75	4.2		(100)	5.6	1/4

Note: *Dominant size category & subdominant size category based on substrate size class table will be determined in CABIN. Wolman D_{50} (median diameter), Wolman Dg (geometric mean diameter) and the % composition of the substrate classes are also automatically calculated with the 100 pebble measurements entered into CABIN. Median embeddedness score will also be calculated from data entered into CABIN.*

Field Crew Carol Maichoe, Mia Hargrave Site ATT-IDZ

Sampling Date (D/M/Y) 15/09/2025

Water Chemistry **Time:** 15:00 (24hr clock) **Time zone:** Pac-D-C

Air Temp (°C) _____ Water Temp N/A 9.9 (°C) pH 7.01

Specific Conductance (µs/cm) 160 DO (mg/L) 9.8 Turbidity (NTU) _____

Check if samples collected:

☐ TSS or TDS

☐ Major Ions (i.e. alkalinity, hardness, Cl, SO4), Nitrogen (i.e. total, nitrate, nitrite, dissolved, ammonia)

☐ Phosphorus (total, ortho, dissolved)

☐ Other_____

Slope (*indicate how slope was measured*)

☐ 1. **Calculated from map** *(small scale map recommended i.e. 1:20,000)*

slope = vertical distance/horizontal distance =_____

☐ 2. **Measured in field** (*circle device and fill out table according to device used: a or b*)

a. survey equipment **b. hand level & measuring tape** **c. clinometer** _____

Measurements	Upstream (US)	Downstream (DS)	Calculation
[a]Top Hairline (T)			
[a]Mid Hairline (ht) OR [b]Height of rod			DS_{ht}-US_{ht}=
[a]Bottom Hairline (B)			
[b]Distance (dis) OR [a]T-B x 100	[a]US_{dis}=T-B	[a]DS_{dis}=T-B	US_{dis}+DS_{dis}=
Slope (Δht/total dis)			

Velocity and Depth	1	2	3	4	5	6	
For wetted widths > 5m, measure a minimum of 5-6 equidistant locations; For wetted widths < 5m, measure 3-4 equidistant locations							
Distance (m) from: Left Bank Right Bank							
Depth (**D**) (cm)							
Depth (flow / stagnation)							
Flow depth (thin side ruler)							
Stagnant (wide side)							
3. Direct Measurement							
Velocity (**V**) (m/s)	0.84	1.94	0.67	0.54			

1.18sec 0.44s 1.45sec 1.23sec avg = 0.99 m/s

Field Crew Martin Davies, Carol Maiche Site EEM18

Sampling Date (D/M/Y) 16/09/25

Primary Site Data Project: KEM12954

Local Basin name:

River/Stream Name: Attichika Stream Order (map scale 1:50,000):

☐ Reference Area Site ☑ Exposure Area Site

Geographical description/notes:

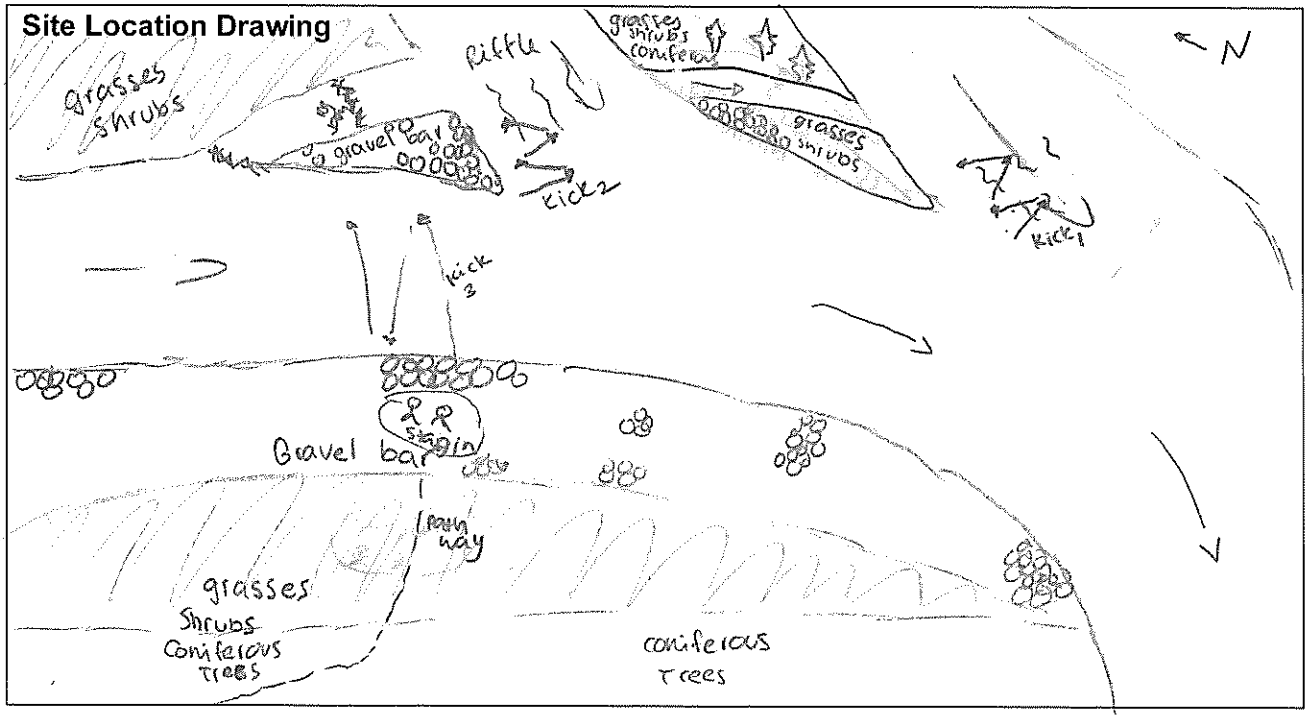
Surrounding Land Use (check those present and circle dominant)

☒ Forest ☐ Field/Pasture ☐ Agriculture ☐ Residential/Urban
☐ Logging ☐ Mining ☐ Commercial/Industrial ☐ Other

Location Data

UTM E: UTM N: Elevation: (masl)

Site Location Drawing



Photos

field sheet ☐ upstream ☑ downstream ☑ across site ☑ aerial view ☐
substrate (exposed bar) ☑ substrate (aquatic) ☑ miscellaneous ☐

Field Crew Martin Davies Site EFM-18

Sampling Date (D/M/Y) 16/09/25

Sample Area Data *(represents 6x bankfull width)*

1. Habitat types present in reach *(check all present)*:
☒ riffle ☐ rapids ☒ straight run ☐ pool/back eddy

2. Canopy Cover *(approximate shaded percentage over kick area)*:
☐ 0% ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

3. Macrophyte Cover:
☒ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

4. Bryophyte Cover *(wetted in-stream rocks, not on shore or bank)*:
☐ 0% ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

5. Streamside Vegetation *(check all present)*:
☒ ferns/grasses ☒ shrubs ☐ deciduous trees ☒ coniferous trees

6. Dominant Streamside Vegetation *(check one)*:
☐ ferns/grasses ☒ shrubs ☐ deciduous trees ☐ coniferous trees

7. Periphyton Coverage on Substrate *(benthic algae; check one)*
☐ **1** – substrate slimy, no obvious colour (**thin layer < 0.5 mm thick**)
☐ **2** - yellow-brown to light green colour (**0.5-1 mm thick**)
☒ **3 - patches** of thicker green to brown algae **(1-5 mm thick)**
☐ **4 - numerous large clumps** of green to dark brown algae **(5 mm - 2 cm thick)**
☐ **5** - Rocks mostly obscured by **algal mat**, extensive green, brown to black algal mass may have **long strands (> 2 cm thick)**

Benthic Invertebrate Samples

Habitat(s) sampled: ☑ riffle ☐ straight run

Mesh size:	<400µm	400µm	500µm
Person sampling	CM		
Sampling time (i.e. 3 min)		3min	
No. of sample jars			
Typical depth (in kick area)		25	

Preservative: ☑ Formalin ☐ Ethanol

"Bucket Swirling Method" to elutriate? YES ☐ NO ☐
If yes, sediment retained for QA/QC? YES ☐ NO ☐

Sample Notes: very gravely & sandy. Sculpin present there are 2 braids in the chanel that have some riffles kicked in that area, and one kick in the main channel. lots of caddis. Quite a bit of fillamental green algae.

Widths

Location Downstream of Kick 1. *(station/rep)*

A. **Bankfull Width** 28.4 (m) B. **Wetted Width**: 25.4 (m)

C. **Bankfull–Wetted Depth**
☐ Measuring stick: water surface to bankfull tape or line 2.1 (cm)

Field Crew MD , CM Site EEM-18

Sampling Date (D/M/Y) 16/09/25

SUBSTRATE DATA

Surrounding/Interstitial Material:
Indicate substrate size category for surrounding material 2

SUBSTRATE SIZE CLASS	CATEGORY
organic cover	0
<0.1 cm (silt/clay)	1
0.1-0.2 cm (sand)	2
0.2-1.6 cm (gravel)	3
1.6-3.2 cm (pebble)	4
3.2-6.4 cm (pebble)	5
6.4-12.8 cm (cobble)	6
12.8-25.6 cm (cobble)	7
>25.6 cm (boulder)	8
bedrock	9

100 Pebble Count & Embeddedness of the armour layer of the stream bed

Measure the intermediate axis & the depth the substrate is buried in the surrounding material
If the site is bedrock, sand (<0.2 cm), or organic material, indicate S, B, or O

E: 1=completely embedded, 3/4 embedded, 1/2 embedded, 1/4 embedded, 0=unembedded

	Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E
1	11.4		26	7.7		51	2.6		76	4.6	
2	7.8		27	4.5		52	7.2		77	3.2	
3	4.4		28	4.2		53	5.1		78	10.3	
4	2.8		29	6.4		54	3.2		79	7.4	
5	6.0		(30)	7.1	1/4	55	8.8		(80)	9.3	1/4
6	2.5		31	7.3		56	4.6		81	4.0	
7	4.6		32	8.2		57	4.5		82	1.7	
8	4.8		33	7.7		58	4.2		83	3.9	
9	4.2		34	5.1		59	5.4		84	4.3	
(10)	1.6	1/2	35	4.0		(60)	5.2	1/4	85	3.7	
11	4.7		36	3.9		61	3.7		86	2.0	
12	2.4		37	5.0		62	6.1		87	3.6	
13	5.0		38	4.9		63	4.7		88	11.0	
14	6.0		39	9.7		64	2.7		89	2.9	
15	5.2		(40)	8.3	0	65	7.1		(90)	2.0	1/2
16	4.7		41	8.5		66	3.2		91	2.5	
17	7.0		42	8.2		67	9.3		92	4.8	
18	5.0		43	6.4		68	3.2		93	5.2	
19	13.6		44	5.4		69	5.8		94	5.3	
(20)	8.2	1/4	45	4.7		(70)	5.8	1/4	95	6.2	
21	3.2		46	3.5		71	4.5		96	1.6	
22	8.0		47	2.9		72	2.6		97	3.1	
23	5.5		48	4.5		73	4.5		98	2.1	
24	4.9		49	6.8		74	4.5		99	3.5	
25	7.7		(50)	8.5	0	75	2.4		100	3.1	3/4

Note: *Dominant size category & subdominant size category based on substrate size class table will be determined in CABIN. Wolman D_{50} (median diameter), Wolman Dg (geometric mean diameter) and the % composition of the substrate classes are also automatically calculated with the 100 pebble measurements entered into CABIN. Median embeddedness score will also be calculated from data entered into CABIN.*

Field Crew MD CM Site EEM-18

Sampling Date (D/M/Y) 16/09/25

Water Chemistry **Time:** 1105 (24hr clock) **Time zone:** —

Air Temp (°C) _____ Water Temp 9.4 (°C) pH 6.8

Specific Conductance (µs/cm) 171 DO (mg/L) 9.5 Turbidity (NTU) —

Check if samples collected:

☐ TSS or TDS

☐ Major Ions (i.e. alkalinity, hardness, Cl, SO4), Nitrogen (i.e. total, nitrate, nitrite, dissolved, ammonia)

☐ Phosphorus (total, ortho, dissolved)

☐ Other _____

Slope (*indicate how slope was measured*)

☐ 1. **Calculated from map** *(small scale map recommended i.e. 1:20,000)*

slope = vertical distance/horizontal distance = _____

☐ 2. **Measured in field** *(circle device and fill out table according to device used: a or b)*

a. survey equipment **b. hand level & measuring tape** **c. clinometer** _____

Measurements	Upstream (US)	Downstream (DS)	Calculation
[a]Top Hairline (T)			
[a]Mid Hairline (ht) OR [b]Height of rod			DS_{ht}-US_{ht}=
[a]Bottom Hairline (B)			
[b]Distance (dis) OR [a]T-B x 100	[a]US_{dis}=T-B	[a]DS_{dis}=T-B	US_{dis}+DS_{dis}=
Slope (Δht/total dis)			

Velocity and Depth	1	2	3	4	5	6	
For wetted widths > 5m, measure a minimum of 5-6 equidistant locations; For wetted widths < 5m, measure 3-4 equidistant locations							
Distance (m) from: Left Bank Right Bank							
Depth (**D**) (cm)							
Depth (flow / stagnation)							
Flow depth (thin side ruler)							
Stagnant (wide side)							
3. Direct Measurement							
Velocity (**V**) (m/s)							

1.2 1.1 1.3 1.1

Field Crew: B. BEALL, C. MAICHLE, N. PIERRE

Site Code: LREF-1

Sampling Date (DD/MM/YY): 12 SEP 2025

OHS: Site Inspection Sheet Completed

PRIMARY SITE DATA

CABIN Study Name: KEMESS SEMP/NMP

Wetland Name: LENTIC REF 1

Local Basin Name: FINLAY R

Ecoregion:

Arrival time: 0930

Departure time:

GEOGRAPHICAL DESCRIPTION/NOTES:

LAND USE POTENTIALLY INFLUENCING WETLAND (0–50 M)
LAND USE *(CHECK THOSE PRESENT)*:

INFORMATION SOURCE:

(Forest) Field/Pasture Agriculture Residential/Urban

Logging Mining Commercial/Industrial Other

DOMINANT LAND USE *(CHECK ONE)*:

INFORMATION SOURCE:

(Forest) Field/Pasture Agriculture Residential/Urban

Logging Mining Commercial/Industrial Other

Field Crew: Bb, CM, NP

Site Code: LREF-1

Sampling Date (DD/MM/YY): 12 Sep 2025

LOCATION DATA

Latitude: _____ N

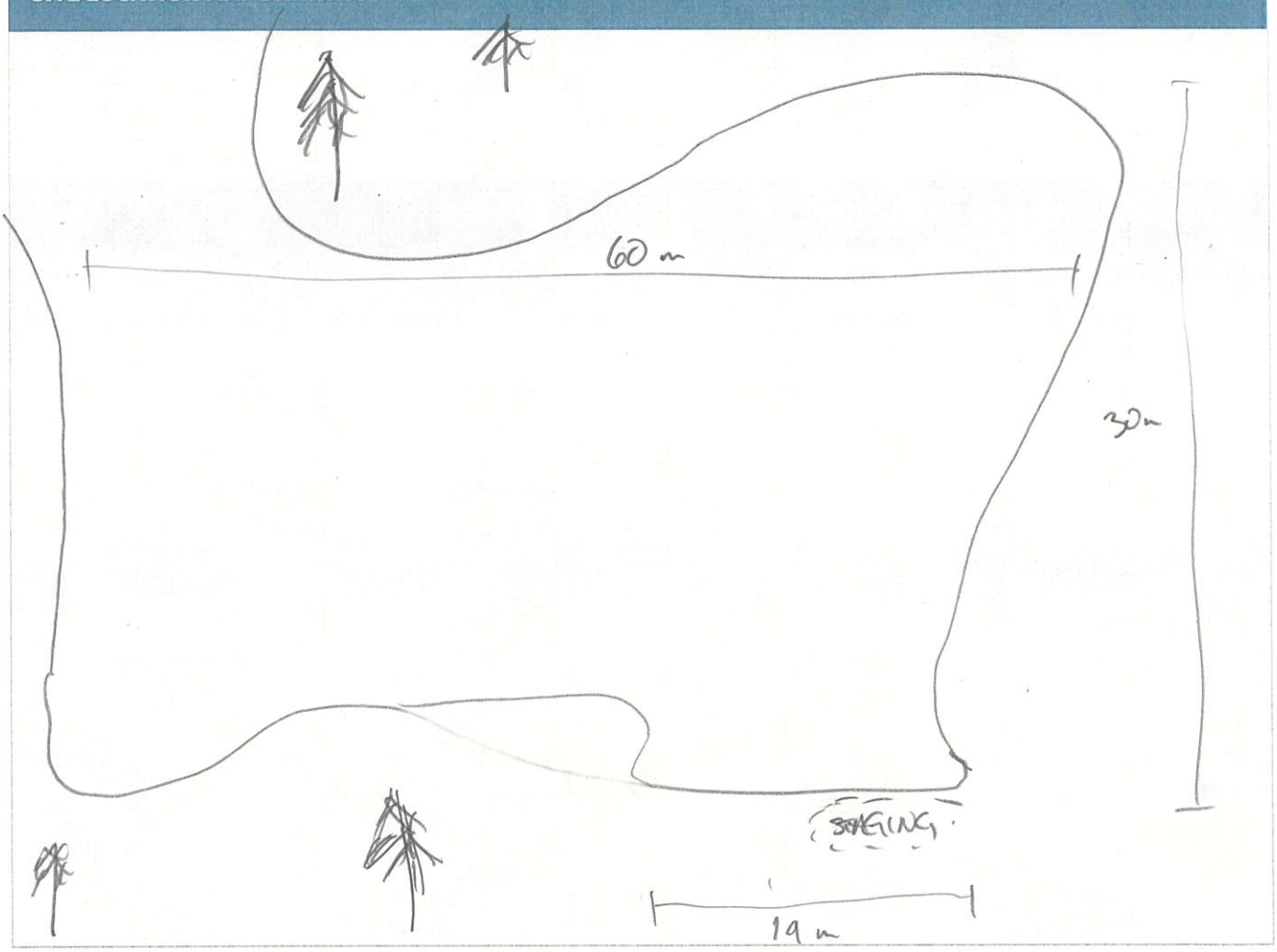
Longitude: _____ W (deg/min/sec or decimal deg

Elevation: _____ (masl)

GPS Datum: GRS80 (NAD83/WGS84)

Other _____

SITE LOCATION MAP DRAWING



Field Crew: BB, CM, NP Site Code: LREF-1

Sampling Date (DD/MM/YY): 12 SEP 2025

PHOTOS

Field sheet _____ North _____ East _____ South _____ West _____

Vegetation (in sampled area) _____ Exposed Substrate / Mud Flat _____

Acces point _____ Aerial Photo _____ Other _____ (i.e., Sampling photos)

WETLAND CHARACTERISTICS
WHOLE WETLAND

HYDROLOGICAL TYPE

(Basin/Pond/Pool) Lacustrine Riverine

WATER-LEVEL STAGE AT THE TIME OF SAMPLING *(CHECK ONE)*:

Dry Vestigial Recessional coniferous trees Intermediate s

(Full) Flooded Overflowing Typical Depth 0.5-1.0 (m)

Field Crew: CM, BB, NF

Site Code: LREF-1

Sampling Date (DD/MM/YY): 12 SEP 2025

VEGETATION COVER

HIGHER PLANTS

Emergent

0%	1–5%	6–25%	26–50%	51–75%	76–100%

Floating

0%	1–5%	6–25%	26–50%	51–75%	76–100%

Submergent

0%	1–5%	6–25%	26–50%	51–75%	76–100%

ALGAE / CYANOBACTERIA

Algal bloom and/or cyanobacterial bloom

Absent	Present

FILAMENTOUS ALGAE

Absent	Present

BIOFILM PRESENT Yes / No

Comments (thickness, abundance, marl):

Field Crew: BB, CM, NP Site Code: LREF-1

Sampling Date (DD/MM/YY): 12 SEP 2025

MARGINAL WETLAND

WETLAND MARGINAL VEGETATION 0–50 M AROUND WETLAND (CHECK THOSE PRESENT):

Ferns/grasses/sedges	Shrubs	Deciduous trees	Coniferous trees	Agricultural crops
✓	✓		✓	

DOMINANT WETLAND MARGINAL VEGETATION *(CHECK ONE)*:

Ferns/grasses/sedges	Shrubs	Deciduous trees	Coniferous trees	Agricultural crops
✓				

CANOPY COVER / SHADING

Not shaded	Partially shaded	Fully shaded
(circled)		

MANAGED BUFFER STRIP

Absent	Present	Natural setting, no buffer
BB		(circled)

Field Crew: BB, CM, NP

Site Code: LREF-1

Sampling Date (DD/MM/YY): 12-SEP-2025

WATER / SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Time (include time zone)		0950
Air Temp (°C)		10°C
Water Temp (°C)		10.1°C
pH		6.57
Specific Conductance (µs/cm)		110
DO (mg/L)	1/3 Depth	8.6
	5 cm above bottom	8.2
DO (%)	1/3 Depth	
	5 cm above bottom	
Turbidity (NTU)		

Check if samples collected:

- Nutrients & TSS
- Major Ions
- Sediment sample ✓
- Other _____

SUBSTRATE SIZE CLASSES	CLASS SIZE
Organic cover (> 50% of area)	0
< 0.1 cm (sand/silt/clay)	(1)
0.1–0.2 cm (coarse sand)	2
0.2-1.6cm (gravel)	3

Field Crew: BB, CM, NP Site Code: LREF-1

Sampling Date (DD/MM/YY): 12 SEP 2025

BENTHIC MACROINVERTEBRATE SAMPLES

Habitat(s) sampled: EKMAN Emergent zone (Submergent zone) Other_____

~~400-MM MESH NET~~	SWEEP 1	QA/QC 1	QA/QC 2	Preservative used
Person sampling				
Sampling time ~~(i.e., 2 min)~~	EKMAN — COMPOSITE OF 3 GRABS			
No. of sample jars				
Typical depth (in sampling area)				

Field Crew: _____ Site Code: _____

Sampling Date (DD/MM/YY): _____

SITE SAFETY INSPECTION

Notes to Safety Officer:
Remind crew to keep eyes open for anything unusual
Communicate any hazards continually
Pay attention to minor safety concerns: dehydration, hunger, fatigue, illness
Promote open communication among crew members

Site Inspected by _____:

Itinerary left with contact person Call-in procedure activated

THA/SWP read and signed by staff for

Wading

Driving

Wading

West Nile / Hanta Virus / Lyme disease

Helicopter Safety (if applicable)

All staff trained in boat safety, swiftwater, first aid, helicopter egress, wilderness survival.
If not, specify who is not trained: _____

Boat Safety

Safety equipment (first aid, fire extinguisher, blanket, emergency kit, flares, safety survival bag)

Equipment and chemicals safely secured for transport

Boat moored safely, two ropes for securing

Shore & Site Hazards and Wading Safety

Wetland hazards identified (i.e., logs, deep pools)

First Aid kit

Bear Spray / Bear Bangers / Air Horns on site

Poor weather (i.e., too hot or lightning)

Signs of wildlife (bears, cougars, moose)

Wetland hazards identified (i.e., logs, deep pools, slippery rocks, holes, muskrat / beaver run, foot entrapment in substrate) and listed

PFDs worn; appropriate footwear, waders, wading belt; wading staff; Remote survival gear bag appropriate for sampling area

Notes:

Field Crew: Ben Beall, Carol Maichle Site Code: WRC-BP

Sampling Date (DD/MM/YY): 19/09/25

OHS: Site Inspection Sheet Completed

PRIMARY SITE DATA

CABIN Study Name: KEM 12954 SEMP/NMP Wetland Name: WRC-BP

Local Basin Name: ATTICHICKA Ecoregion:

Arrival time: 1000 Departure time: 1210

GEOGRAPHICAL DESCRIPTION/NOTES:

LAND USE POTENTIALLY INFLUENCING WETLAND (0–50 M)
LAND USE *(CHECK THOSE PRESENT)*: **INFORMATION SOURCE:**

(Forest) Field/Pasture Agriculture Residential/Urban

Logging (Mining) Commercial/Industrial Other

DOMINANT LAND USE *(CHECK ONE)*: **INFORMATION SOURCE:**

Forest Field/Pasture Agriculture Residential/Urban

Logging (Mining) Commercial/Industrial Other

Field Crew: BB, CM

Site Code: WRC-BP

Sampling Date (DD/MM/YY): 14 SEP 2025

LOCATION DATA

Latitude: _____N

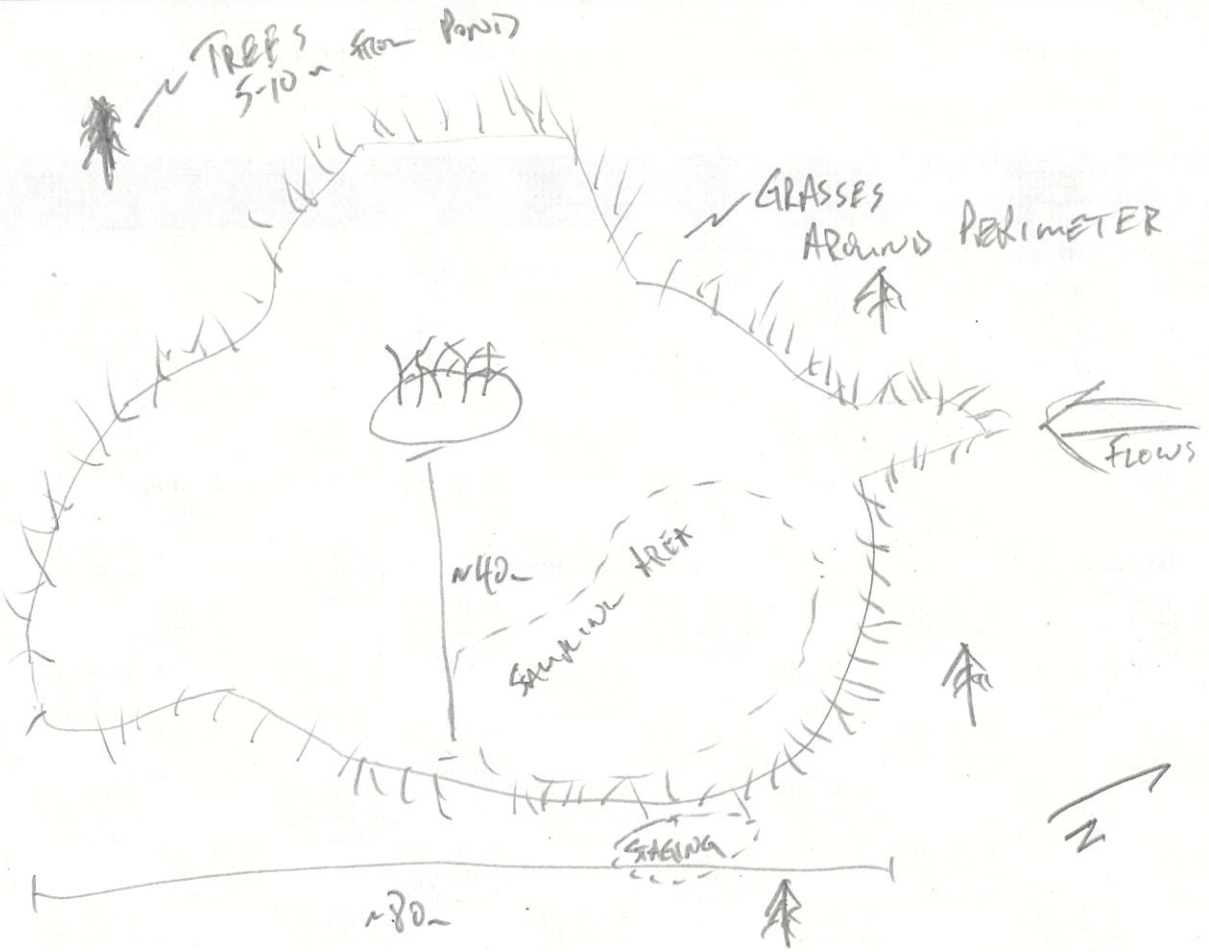
Longitude: _____W (deg/min/sec or decimal deg

Elevation: _____(masl)

GPS Datum: GRS80 (NAD83/WGS84)

Other _____

SITE LOCATION MAP DRAWING



Field Crew: BB, CM Site Code: WRC-BP

Sampling Date (DD/MM/YY): 14 SEP 2025

PHOTOS

Field sheet _____ North ✓ East — South ✓ West ✓

Vegetation (in sampled area) ✓ Exposed Substrate / Mud Flat ✓

Acces point _____ Aerial Photo _____ Other ✓ (i.e., Sampling photos)

WETLAND CHARACTERISTICS WHOLE WETLAND

HYDROLOGICAL TYPE

Basin/Pond/Pool (circled) Lacustrine Riverine

WATER-LEVEL STAGE AT THE TIME OF SAMPLING *(CHECK ONE)*:

Dry Vestigial Recessional coniferous trees Intermediate s

(Full) Flooded Overflowing Typical Depth 0.1-0.2 (m)

Field Crew: BB, CM Site Code: WRC-BP

Sampling Date (DD/MM/YY): 14 SEP 2025

VEGETATION COVER

HIGHER PLANTS

Emergent

0% | 1–5% | (6–25%) | 26–50% | 51–75% | 76–100%

Floating

(0%) | 1–5% | 6–25% | 26–50% | 51–75% | 76–100%

Submergent

0% | 1–5% | (6–25%) | 26–50% | 51–75% | 76–100%

ALGAE / CYANOBACTERIA

Algal bloom and/or cyanobacterial bloom

(Absent) | Present

FILAMENTOUS ALGAE

(Absent) | Present

BIOFILM PRESENT (Yes) | No

Comments (thickness, abundance, marl): THIN, BROWN ON PLANTS; NO HARD SUBSTRATES

Field Crew: bb, Cm Site Code: WRC-BP

Sampling Date (DD/MM/YY): 14 Sep 2025

MARGINAL WETLAND

WETLAND MARGINAL VEGETATION 0–50 M AROUND WETLAND (CHECK THOSE PRESENT):

(Ferns/grasses/sedges) (Shrubs) Deciduous trees (Coniferous trees) Agricultural crops

DOMINANT WETLAND MARGINAL VEGETATION *(CHECK ONE)*:

(Ferns/grasses/sedges) Shrubs Deciduous trees Coniferous trees Agricultural crops

CANOPY COVER / SHADING

(Not shaded) Partially shaded Fully shaded

MANAGED BUFFER STRIP

Absent Present (Natural setting, no buffer)

Field Crew: BB, CMS

Site Code: WRC-BP

Sampling Date (DD/MM/YY): 14 SEP 2025

WATER / SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Time (include time zone)		10 20	Check if samples collected:
Air Temp (°C)		10°C	Nutrients & TSS Major Ions (Sediment sample) 3 REPLICATE
Water Temp (°C)		11.0°C	
pH		7.00	Other
Specific Conductance (µs/cm)		247	
DO (mg/L)	1/3 Depth	5.2	
	5 cm above bottom		
DO (%)	1/3 Depth		
	5 cm above bottom		
Turbidity (NTU)			

SUBSTRATE SIZE CLASSES	CLASS SIZE
Organic cover (> 50% of area)	0
< 0.1 cm (sand/silt/clay)	(1)
0.1–0.2 cm (coarse sand)	2
0.2-1.6cm (gravel)	3

Field Crew: BB, CM

Site Code: WRCV-BP

Sampling Date (DD/MM/YY): 14 SEP 2025

BENTHIC MACROINVERTEBRATE SAMPLES

Habitat(s) sampled:	Emergent zone	Submergent zone	Other_____	Preservative used
EKMAN ~~400 MM MESH NET~~	COMP 1 ~~SWEEP 1~~	LENT DUP 1 ~~QA/QC 1~~	QA/QC 2	Formalin
Person sampling	CM, BB			
Sampling time (i.e., 2 min)	COMPOSITE OF 3 GRABS	COMPOSITE OF 3 GRABS		
No. of sample jars	3	3		
Typical depth (in sampling area)	10 cm	10 cm		

Field Crew: bb, cm

Site Code: WRC-BP

Sampling Date (DD/MM/YY): 14 SEP 2025

SITE SAFETY INSPECTION

Notes to Safety Officer:
Remind crew to keep eyes open for anything unusual
Communicate any hazards continually
Pay attention to minor safety concerns: dehydration, hunger, fatigue, illness
Promote open communication among crew members

Site Inspected by bb

Itinerary left with contact person ✓

Call-in procedure activated ✓

THA/SWP read and signed by staff for

Wading ✓

Driving ✓

Wading

West Nile / Hanta Virus / Lyme disease

Helicopter Safety (if applicable)

All staff trained in boat safety, swiftwater, first aid, helicopter egress, wilderness survival.
If not, specify who is not trained: _____

Boat Safety

Safety equipment (first aid, fire extinguisher, blanket, emergency kit, flares, safety survival bag)

Equipment and chemicals safely secured for transport

Boat moored safely, two ropes for securing

Shore & Site Hazards and Wading Safety

Wetland hazards identified (i.e., logs, deep pools) ✓

First Aid kit ✓

Bear Spray / Bear Bangers / Air Horns on site ✓

Poor weather (i.e., too hot or lightning) ✓

Signs of wildlife (bears, cougars, moose) ✓ NO WILDLIFE SIGNS

Wetland hazards identified (i.e., logs, deep pools, slippery rocks, holes, muskrat / beaver run, foot entrapment in substrate) and listed

PFDs worn; appropriate footwear, waders, wading belt; wading staff; Remote survival gear bag appropriate for sampling area

Notes:

Field Crew: MD / CM Site: WQ - 14 F

Sampling Date (D/M/Y): 19/09/25

Primary Site Data Project: KEM12954

Local Basin name: Waste Rock Creek / Attichika Ck

River/Stream Name: WasteRock Ck. Stream Order (map scale 1:50,000):

☐ Reference Area Site ☑ Exposure Area Site

Geographical description/notes:

Sampled CABIN d/s of flume at end of track pullout

Sampled peri. from rocks just u/s of flume

Surrounding Land Use (check those present and circle dominant)

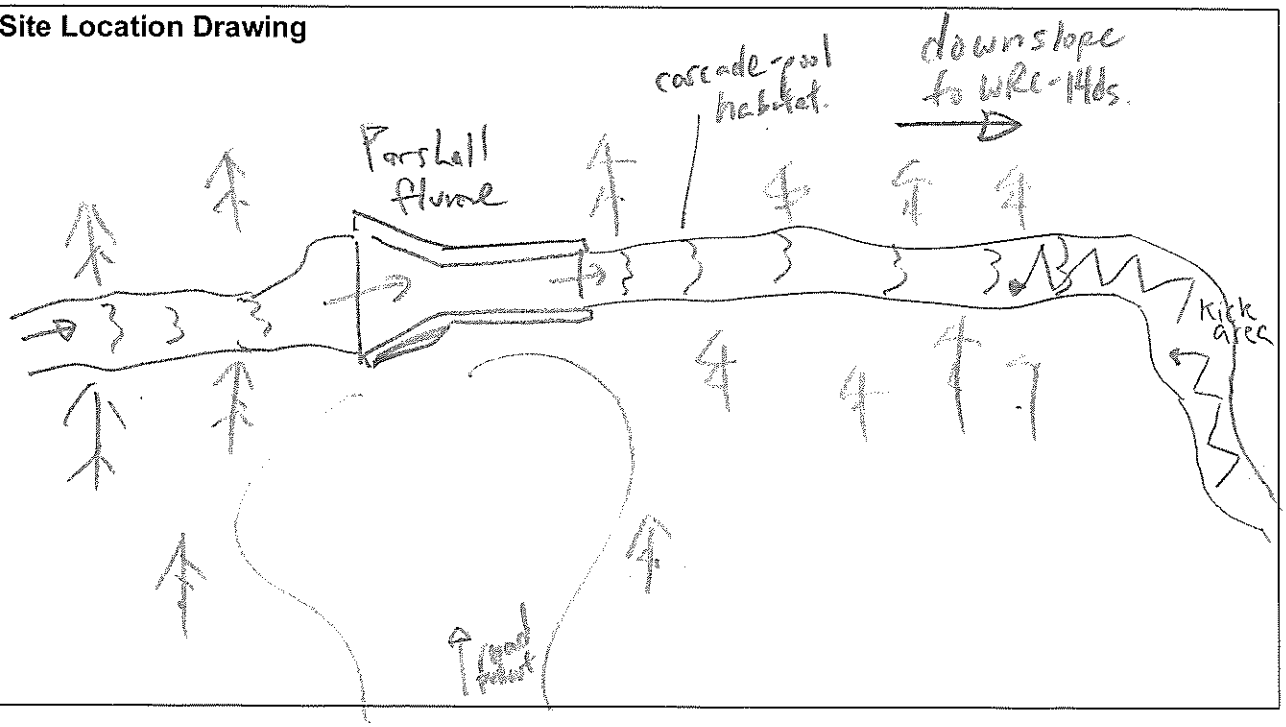
☑ Forest ☐ Field/Pasture ☐ Agriculture ☐ Residential/Urban

☐ Logging ☐ Mining ☐ Commercial/Industrial ☐ Other

Location Data Gav

UTM E: 0634093 UTM N: 6318120 Elevation: 1199 (masl)

Site Location Drawing



Photos

field sheet ☑ upstream ☑ downstream ☑ across site ☑ aerial view ☐

substrate (exposed bar) ☑ substrate (aquatic) ☑ miscellaneous flume ☑

Field Crew _____ Site _____

Sampling Date (D/M/Y) _____

Sample Area Data *(represents 6x bankfull width)*

1. Habitat types present in reach *(check all present)*:
cascade - pool
☑ riffle ☐ rapids ☐ straight run ☐ pool/back eddy

2. Canopy Cover *(approximate shaded percentage over kick area)*:
☐ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☑ 76-100%

3. Macrophyte Cover:
☑ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

4. Bryophyte Cover *(wetted in-stream rocks, not on shore or bank)*:
☐ 0% ☐ 1-25% ☒ 26-50% ☐ 51-75% ☐ 76-100%

5. Streamside Vegetation *(check all present)*:
☐ ferns/grasses ☑ shrubs ☐ deciduous trees ☑ coniferous trees

6. Dominant Streamside Vegetation *(check one)*:
☐ ferns/grasses ☐ shrubs ☐ deciduous trees ☑ coniferous trees

7. Periphyton Coverage on Substrate *(benthic algae; check one)*
☐ **1** – substrate slimy, no obvious colour (**thin layer < 0.5 mm thick**)
☐ **2** - yellow-brown to light green colour (**0.5-1 mm thick**)
☑ **3** - **patches** of thicker green to brown algae (**1-5 mm thick**)
☐ **4** - **numerous large clumps** of green to dark brown algae (**5 mm - 2 cm thick**)
☐ **5** - Rocks mostly obscured by **algal mat**, extensive green, brown to black algal mass may have **long strands (> 2 cm thick)**

Benthic Invertebrate Samples

Habitat(s) sampled: ☑ riffle ☐ straight run cascade - pool

Mesh size:	<400µm	400µm	500µm
Person sampling	CM		
Sampling time (i.e. 3 min)	3mun		
No. of sample jars	1 Jar		
Typical depth (in kick area)	0.1m		

Preservative: ☑ Formalin ☐ Ethanol

"Bucket Swirling Method" to elutriate? YES ☐ NO ☑
If yes, sediment retained for QA/QC? YES ☐ NO ☑

Sample Notes: very hard to sample. shallower creek, not very wide. Some areas were not very "flowing" so it wouldn't go in the net. Hard to move in the stream. During pebble count some rocks had algae. however, it was not in a good kicking area.

Widths

Location 5m d/s of flume *(station/rep)*

A. **Bankfull Width** 0.5 (m) B. **Wetted Width:** 0.5 (m)

C. **Bankfull–Wetted Depth**
☐ Measuring stick: water surface to bankfull tape or line 0 (cm) (cutbank on both banks)

Field Crew CM / ND Site WQ-14F

Sampling Date (D/M/Y) 19/09/25

SUBSTRATE DATA

Surrounding/Interstitial Material:
Indicate substrate size category for surrounding material 2 - 4
Some areas are sandy and others gravely in the stream

SUBSTRATE SIZE CLASS	CATEGORY
organic cover	0
<0.1 cm (silt/clay)	1
0.1-0.2 cm (sand)	2
0.2-1.6 cm (gravel)	3
1.6-3.2 cm (pebble)	4
3.2-6.4 cm (pebble)	5
6.4-12.8 cm (cobble)	6
12.8-25.6 cm (cobble)	7
>25.6 cm (boulder)	8
bedrock	9

100 Pebble Count & Embeddedness of the armour layer of the stream bed

Measure the intermediate axis & the depth the substrate is buried in the surrounding material
If the site is bedrock, sand (<0.2 cm), or organic material, indicate S, B, or O

E: 1=completely embedded, 3/4 embedded, 1/2 embedded, 1/4 embedded, 0=unembedded

	Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E
1	4.5		26	10.7		51	16.0		76	8.3	
2	5.1		27	10.0		52	17.5		77	7.6	
3	6.2		28	13.0		53	6.5		78	5.5	
4	16.5		29	S		54	16.0		79	10.0	
5	20.0		(30)	6.4	1/4	55	8.6		(80)	6.6	1/2
6	9.1		31	7.9		56	10.2		81	8.5	
7	15.5		32	5.6		57	32.0		82	11.3	
8	9.6		33	5.9		58	24.0		83	11.0	
9	10.8		34	0.5		59	10.7		84	15.0	
(10)	10.9	3/4	35	7.4		(60)	6.5	1/4	85	7.5	
11	12.4		36	6.0		61	8.6		86	10.5	
12	8.7		37	14		62	2.6		87	8.9	
13	7.4		38	6.0		63	5.4		88	5.8	
14	14.2		39	5.9		64	3.9		89	12.7	
15	17.5		(40)	7.0	1/2	65	14.2		(90)	6.6	1/4
16	12.8		41	3.6		66	5.4		91	7.4	
17	4.0		42	4.7		67	10.6		92	10.7	
18	17.4		43	19.4		68	9.0		93	18.2	
19	10.2		44	10.1		69	10.5		94	8.1	
(20)	13.6	1/4	45	2.2		(70)	12.7	0	95	15.6	
21	17.3		46	28.5		71	15.2		96	12.3	
22	7.6		47	12.1		72	17.7		97	12.0	
23	8.6		48	2.1		73	7.0		98	10.4	
24	13.8		49	2.3		74	9.3		99	11.5	
25	14.1		(50)	24.3	1/2	75	11.7		(100)	15.3	0

Note: *Dominant size category & subdominant size category based on substrate size class table will be determined in CABIN. Wolman D_{50} (median diameter), Wolman Dg (geometric mean diameter) and the % composition of the substrate classes are also automatically calculated with the 100 pebble measurements entered into CABIN. Median embeddedness score will also be calculated from data entered into CABIN.*

Field Crew CM / MD Site HQ-14F

Sampling Date (D/M/Y) 19/09/25

Water Chemistry **Time:** 10:05 (24hr clock) **Time zone:** _____

Air Temp (°C) 8.3 Water Temp 8.3 (°C) pH 6.70 (unitless)

Specific Conductance (µs/cm) 333 DO (mg/L) 9.6 Turbidity (NTU) /

(Hanna pen)

Check if samples collected:

☐ TSS or TDS

☐ Major Ions (i.e. alkalinity, hardness, Cl, SO4), Nitrogen (i.e. total, nitrate, nitrite, dissolved, ammonia)

☐ Phosphorus (total, ortho, dissolved)

☐ Other_____

Slope *(indicate how slope was measured)*

☑ 1. **Calculated from map** *(small scale map recommended i.e. 1:20,000)*

slope = vertical distance/horizontal distance =_____

☐ 2. **Measured in field** *(circle device and fill out table according to device used: a or b)*

a. survey equipment **b. hand level & measuring tape** **c. clinometer** _____

Measurements	Upstream (US)	Downstream (DS)	Calculation
[a]Top Hairline (T)			
[a]Mid Hairline (ht) OR [b]Height of rod			DS_{ht}-US_{ht}=
[a]Bottom Hairline (B)			
[b]Distance (dis) OR [a]T-B x 100	[a]US_{dis}=T-B	[a]DS_{dis}=T-B	US_{dis}+DS_{dis}=
Slope (Δht/total dis)			

Velocity and Depth	1	2	3	4	5	6	
For wetted widths > 5m, measure a minimum of 5-6 equidistant locations; For wetted widths < 5m, measure 3-4 equidistant locations							
Distance (m) from: (Left Bank) Right Bank							
Depth (**D**) (cm)	0.08	0.10	0.09				
Depth (flow / stagnation)							
Flow depth (thin side ruler)							
Stagnant (wide side)							
3. Direct Measurement							
Velocity (**V**) (m/s)	0.38						

2.63

Field Crew: B. BEALL, L. MAICHLE Site Code: WQ-14ds

Sampling Date (DD/MM/YYYY): 11 SEP 2025

☒ **Occupational Health & Safety: Site Inspection Sheet completed (see page 6)**

PRIMARY SITE DATA

CABIN Study Name: KEMESS SEMP/NMP Local Basin Name: ATTICHIKA

River/Stream Name: WASTE ROCK CREEK Stream Order: (map scale 1:50,000) 2

Select one: ☒ Test Site ☐ Potential Reference Site

Geographical Description/Notes:

- IMMEDIATELY DOWNSTREAM FROM THE ORA ROAD
- CREEK FLOWS THROUGH PERCHED CULVERT INTO SMALL POOL

Surrounding Land Use: (check those present) Information Source: _____

☒ Forest ☐ Field/Pasture ☐ Agriculture ☐ Residential/Urban

☐ Logging ☐ Mining ☐ Commercial/Industrial ☐ Other _____

Dominant Surrounding Land Use: (check one) Information Source: _____

☒ Forest ☐ Field/Pasture ☐ Agriculture ☐ Residential/Urban

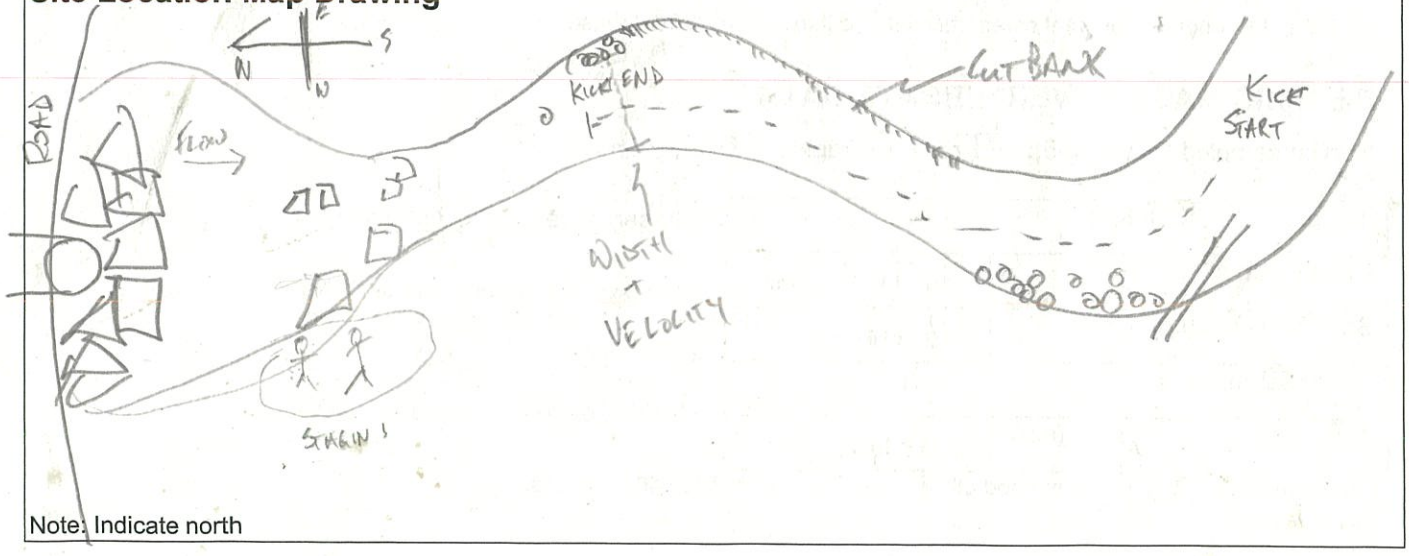
☐ Logging ☐ Mining ☐ Commercial/Industrial ☐ Other _____

Location Data

Latitude: _____N Longitude: - _____W (DMS or DD)

Elevation: _____(fasl *or* masl) GPS Datum: ☐ GRS80 (NAD83/WGS84) ☐ Other: _____

Site Location Map Drawing



Note: Indicate north

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Canada

Field Crew: bb + CM Site Code: WQ-14ds

Sampling Date (DD/MM/YYYY): 11 Sep 2025

Photos

☐ Field Sheet ☐ Upstream ☐ Downstream ☐ Across Site ☐ Aerial View

☐ Substrate (exposed) ☐ Substrate (aquatic) ☐ Other _____

REACH DATA *(represents 6 times bankfull width)*

1. Habitat Types: *(check those present)*

☒ Riffle ☐ Rapids ☐ Straight run ☐ Pool/Back Eddy

2. Canopy Coverage: *(stand in middle of stream and look up, check one)*

☐ 0 % ☐ 1-25 % ☒ 26-50 % ☐ 51-75 % ☐ 76-100 %

3. Macrophyte Coverage: *(not algae or moss, check one)*

☒ 0 % ☐ 1-25 % ☐ 26-50 % ☐ 51-75 % ☐ 76-100 %

4. Streamside Vegetation: (*check those present)*

☒ ferns/grasses ☒ shrubs ☒ deciduous trees ☒ coniferous trees

5. Dominant Streamside Vegetation: *(check one)*

☒ ferns/grasses ☐ shrubs ☐ deciduous trees ☐ coniferous trees

6. Periphyton Coverage on Substrate: *(benthic algae, not moss, check one*)

☒ **1** - Thin layer, no obvious colour (< 0.5 mm thick)

☐ **2** - Yellow-brown to light green colour (0.5-1 mm thick)

☐ **3** - Patches of thicker green to brown algae (1-5 mm thick)

☐ **4** - Numerous large clumps of green to dark brown algae (5-20 mm thick)

☐ **5** - Rocks are mostly obscured by algal mat, extensive green, brown to black algal mass may have long strands (> 20 mm thick)

Note: 1 through 5 represent categories entered into the CABIN database.

BENTHIC MACROINVERTEBRATE DATA

Habitat sampled (*check one*): ☒ riffle ☐ rapids ☐ straight run

400 µm mesh Kick Net *	
Person sampling	CM
Sampling time (i.e. 3 min.)	3 min
No. of sample jars	1
Typical depth in kick area (cm)	5-10 cm

Preservative used: FORMALIN

Sampled sieved on site using the "Bucket Swirling Method":

☐ YES ☒ NO

If YES, debris collected for QA/QC ☐

* Note: Indicate if a sampling method other than the recommended 400 µm mesh kick net is used.

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Field Crew: BB + CM Site Code: WQ-14 ds

Sampling Date (DD/MM/YYYY): 11 SEP 2025

WATER CHEMISTRY DATA **Time:** 1430 (24 hr clock) **Time zone:** _____

Air Temp: 12°C (°C) Water Temp: 10.3°C (°C) pH: 7.62

Specific Conductance: 239 (µs/cm) DO: 8.6 (mg/L) Turbidity: _____ (NTU)

Check if water samples were collected for the following analyses:

☐ TSS (Total Suspended Solids)

☐ Nitrogen (i.e. Total, Nitrate, Nitrite, Dissolved, and/or Ammonia)

☐ Phosphorus (Total, Ortho, and/or Dissolved)

☐ Major Ions (i.e. Alkalinity, Hardness, Chloride, and/or Sulphate) ☐ Other _____

Note: Determining alkalinity is recommended, as are other analyses, but not required for CABIN assessments.

CHANNEL DATA

Slope - Indicate how slope was measured: (check one)

☒ **Calculated from map**

Scale: _____ (Note: small scale map recommended if field measurement is not possible - i.e. 1:20,000).

contour interval (vertical distance) _____ (m),

distance between contour intervals (horizontal distance) _____ (m)

slope = vertical distance/horizontal distance = _____

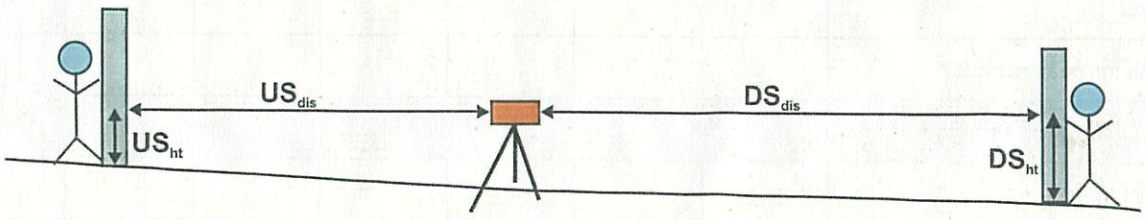
OR

☐ **Measured in field**

Circle device used and fill out table according to device:

a. Survey Equipment b. Hand Level & Measuring Tape

Measurements	Upstream (U/S)	Downstream(D/S)	Calculation
[a]Top Hairline (T)			
[a]Mid Hairline (ht) OR [b]Height of rod			
[a]Bottom Hairline (B)			
[b]Distance (dis) OR [a]T-B x 100	$_{a}US_{dis}$=T-B	$_{a}DS_{dis}$=T-B	$US_{dis}+DS_{dis}$=
Change in height (Δht)			$DS_{ht}-US_{ht}$=
Slope (Δht/total dis)			



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Field Crew: BB+CM Site Code: WQ-14 ds

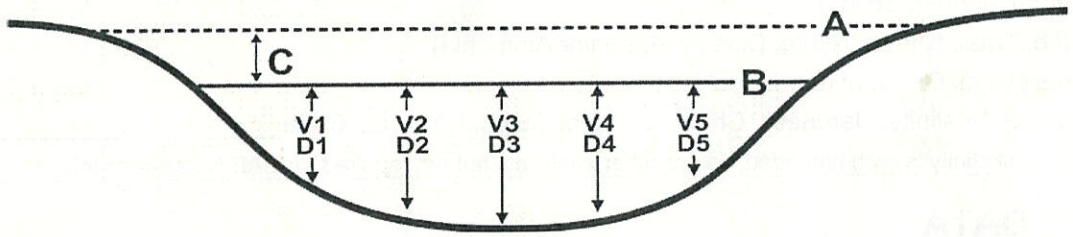
Sampling Date (DD/MM/YYYY): 11 SEP 2025

Widths and Depth

Location at site: MIDDLE OF KICK (Indicate where in sample reach, ex. d/s of kick area)

A - Bankfull Width: 2.0 (m) B - Wetted Stream Width: 1.50 (m)

C - Bankfull–Wetted Depth (height from water surface to Bankfull): 17.5 (cm)



Note:
Wetted widths > 5 m, measure a minimum of 5-6 equidistant locations.
Wetted widths < 5 m, measure 3-4 equidistant locations.

Velocity and Depth

Check appropriate velocity measuring device and fill out the appropriate section in chart below. Distance from shore and depth are required regardless of method:

☐ **Velocity Head Rod (or ruler)**: Velocity Equation (m/s) = $\sqrt{[2(\Delta D/100) * 9.81]}$

☐ **Rotary meters**: Gurley/Price/Mini-Price/Propeller (Refer to specific meter conversion chart for calculation)

☐ **Direct velocity measurements**: ☐ Marsh-McBirney ☐ Sontek or ☐ Other_____

	1	2	3	4	5	6	AVG
Distance from Shore (m)	0.5	0.3					
Depth (**D**) (cm)	3	3					
Velocity Head Rod (ruler)							
Flowing water Depth (D_1) (cm)							
Depth of Stagnation (D_2) (cm)							
Change in depth ($\Delta D=D_2-D_1$) (cm)							
Rotary meter							
Revolutions							
Time (minimum 40 seconds)							
Direct Measurement or calculation							
Velocity (**V**) (m/s)							

1 m in 4.05 s

1 m in 5.99 s

Environment and Climate Change Canada Environnement et Changement climatique Canada Canada

Field Crew: BB + CM Site Code: WQ-14 ds

Sampling Date (DD/MM/YYYY): 11 SEP 2025

SUBSTRATE DATA

1. 100 Pebble Count & Substrate Embeddedness

- Measure the intermediate axis (100 rocks) and embeddedness (10 rocks) of substrate in the stream bed.
- Indicate **B** for bedrock, **S** for sand/silt/clay (particles < 0.2 cm) and **O** for organic material.
- Embededness categories (**E**):
  - Completely embedded = 1
  - 75% embedded = ¾
  - 50% embedded= ½
  - 25% embedded = ¼
  - Unembedded = 0

2. Surrounding/Interstitial Material

Circle the substrate size category for the surrounding material.

Substrate Size Class	Category
Organic Cover	0
< 0.1 cm (fine sand, silt or clay)	1
0.1-0.2 cm (coarse sand)	2
0.2-1.6 cm (gravel)	3
1.6-3.2 cm (small pebble)	4
3.2-6.4 cm (large pebble)	5
6.4-12.8 cm (small cobble)	6
12.8-25.6 cm (cobble)	7
> 25.6 cm (boulder)	8
Bedrock	9

	Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E
1	* 1.5		26	11.4		51	1.8		76	6.8	
2	2.4		27	7.2		52	7.9		77	2.7	
3	1.1		28	22.5		53	8.2		78	4.8	
4	5.1		29	10.8		54	7.7		79	8.7	
5	2.2		30	3.3	O	55	11.4		80	18.5	1/2
6	1.2		31	7.5		56	4.4		81	14.2	
7	10.5		32	12.4		57	17.8		82	5.5	
8	7.1		33	12.5		58	11.7		83	8.7	
9	3.1		34	1.6		59	10.5		84	10.2	
10	6.5	O	35	2.2		60	23.2	1/4	85	1.5	
11	12.5		36	3.1		61	1.5		86	3.7	
12	25.5		37	10.1		62	1.7		87	3.4	
13	11.1		38	4.4		63	20.9		88	3.6	
14	4.2		39	5.4		64	7.8		89	4.3	
15	4.4		40	7.5	O	65	2.8		90	3.2	O
16	5.7		41	3.2		66	2.4		91	3.2	
17	14.2		42	6.1		67	3.2		92	2.8	
18	8.0		43	5.4		68	5.9		93	1.6	
19	4.5		44	10.7		69	5.4		94	2.7	
20	5.5	O	45	3.2		70	8.2	1/2	95	1.2	
21	2.4		46	9.2		71	7.6		96	7.0	
22	6.8		47	10.2		72	2.1		97	10.5	
23	5.4		48	4.7		73	4.7		98	1.6	
24	3.8		49	5.5		74	3.8		99	10.8	
25	5.2		50	1.9	O	75	2.7		100	2.5	O

Note: The Wolman D50 (i.e. median diameter), Wolman Dg (i.e. geometric mean diameter) and the % composition of the substrate classes will be calculated automatically in the CABIN database using the 100 pebble data. All 100 pebbles must be measured in order for the CABIN database tool to perform substrate calculations.

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Field Crew: BB + CM Site Code: W2-14 ES

Sampling Date (DD/MM/YYYY): 11 SEP 2025

SITE INSPECTION

Site Inspected by: BB

Communication Information

☒ Itinerary left with contact person (include contact numbers)

Contact Person: KERRY MARCHINKO Time checked-in: 1300, 1500

Form of communication: ☐ radio ☐ cell ☐ satellite ☐ hotel/pay phone ☐ SPOT INREACH

Phone number: ( ) _____

Vehicle Safety

☑ Safety equipment (first aid, fire extinguisher, blanket, emergency kit in vehicle)

☑ Equipment and chemicals safely secured for transport

☑ Vehicle parked in safe location; pylons, hazard light, reflective vests if necessary

Notes:

Shore & Wading Safety

☒ Wading Task Hazard Analysis read by all field staff

☒ Wading Safe Work Procedures read by all field staff

☑ Instream hazards identified (i.e. log jams, deep pools, slippery rocks)

☐ PFD worn

☒ Appropriate footwear, waders, wading belt

☐ Belay used

Notes:

Field Crew B. BEALL, C. MAICHLE Site WRC-5

Sampling Date (D/M/Y) 11 / SEP / 2025

Primary Site Data Project: KEMESS SEMP / NMP

Local Basin name: ATTICHIKA

River/Stream Name: WASTE ROCK CREEK Stream Order (map scale 1:50,000): 1/2

☐ Reference Area Site ☒ Exposure Area Site

Geographical description/notes:

SMALL CREEK; DOWNSTREAM OF MINE

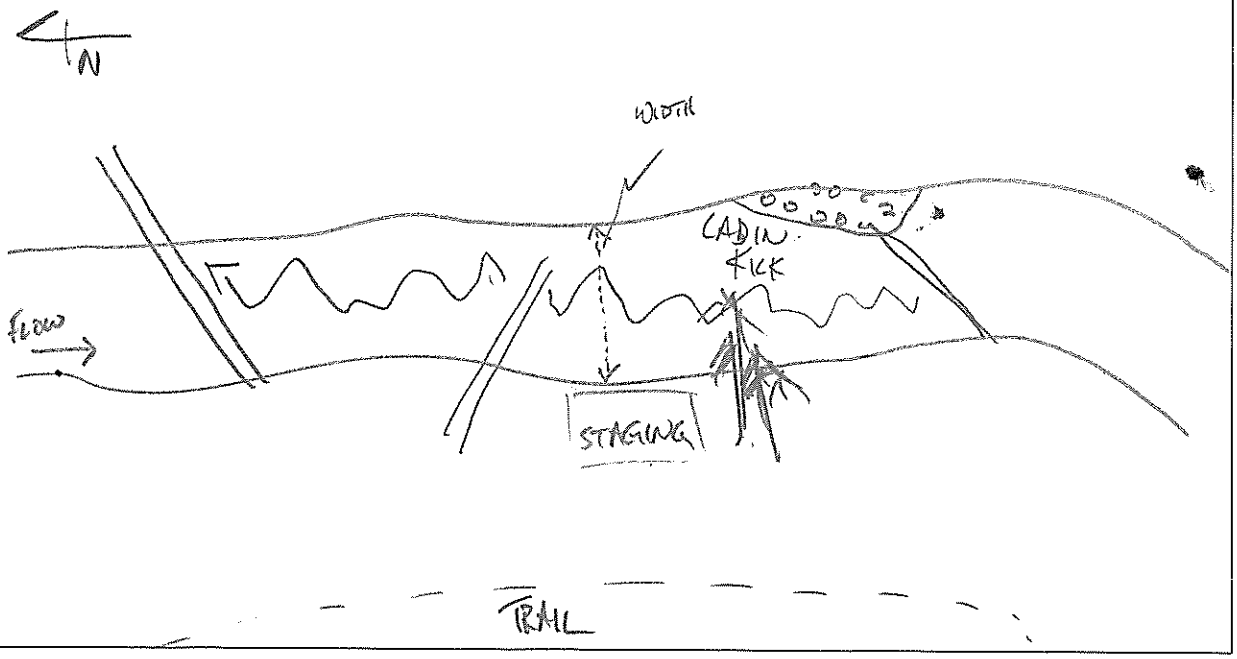
Surrounding Land Use (check those present and circle dominant)

☒ Forest ☐ Field/Pasture ☐ Agriculture ☐ Residential/Urban
☐ Logging ☐ Mining ☐ Commercial/Industrial ☐ Other _____

Location Data

UTM E: _____ UTM N: _____ Elevation: _____ (masl)

Site Location Drawing



Photos

field sheet ☐ upstream ☐ downstream ☐ across site ☐ aerial view ☐
substrate (exposed bar) ☐ substrate (aquatic) ☐ miscellaneous _____ ☐

Field Crew: BB, CM Site: WRC-5

Sampling Date (D/M/Y): 11 Sep 2025

Sample Area Data *(represents 6x bankfull width)*

1. Habitat types present in reach *(check all present)*:
☒ riffle ☐ rapids ☐ straight run ☐ pool/back eddy

2. Canopy Cover *(approximate shaded percentage over kick area)*:
☐ 0% ☐ 1-25% ☐ 26-50% ☒ 51-75% ☐ 76-100%

3. Macrophyte Cover:
☒ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

4. Bryophyte Cover *(wetted in-stream rocks, not on shore or bank)*:
☒ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100%

5. Streamside Vegetation *(check all present)*:
☒ ferns/grasses ☒ shrubs ☐ deciduous trees ☒ coniferous trees

6. Dominant Streamside Vegetation *(check one)*:
☒ ferns/grasses ☐ shrubs ☐ deciduous trees ☐ coniferous trees

7. Periphyton Coverage on Substrate *(benthic algae; check one)*
☒ **1** – substrate slimy, no obvious colour (**thin layer < 0.5 mm thick**)
☐ **2** - yellow-brown to light green colour (**0.5-1 mm thick**)
☐ **3 - patches** of thicker green to brown algae (**1-5 mm thick**)
☐ **4 - numerous large clumps** of green to dark brown algae (**5 mm - 2 cm thick**)
☐ **5** - Rocks mostly obscured by **algal mat**, extensive green, brown to black algal mass may have **long strands (> 2 cm thick)**

Benthic Invertebrate Samples

Habitat(s) sampled: ☒ riffle ☐ straight run

Mesh size:	<400µm	400µm	500µm
Person sampling	CM		
Sampling time (i.e. 3 min)	3 min		
No. of sample jars	1 JAR		
Typical depth (in kick area)	3-5 cm		

Preservative: ☐ Formalin ☐ Ethanol

"Bucket Swirling Method" to elutriate? YES ☐ NO ☐
If yes, sediment retained for QA/QC? YES ☐ NO ☐

Sample Notes: LOW WATER; STRUGGLE TO KEEP FLOW IN KICK NET

Widths

Location: WRC-5 - MIDDLE OF THE KICKS *(station/rep)*

A. **Bankfull Width** 2.0 (m) B. **Wetted Width**: 1.85 (m)

C. **Bankfull–Wetted Depth**
☒ Measuring stick: water surface to bankfull tape or line 31 (cm)

Field Crew CM, BB Site DRL-5

Sampling Date (D/M/Y) 11 SEP 2025

SUBSTRATE DATA

Surrounding/Interstitial Material:
Indicate substrate size category for surrounding material gravel

SUBSTRATE SIZE CLASS	CATEGORY
organic cover	0
<0.1 cm (silt/clay)	1
0.1-0.2 cm (sand)	2
0.2-1.6 cm (gravel)	3
1.6-3.2 cm (pebble)	4
3.2-6.4 cm (pebble)	5
6.4-12.8 cm (cobble)	6
12.8-25.6 cm (cobble)	7
>25.6 cm (boulder)	8
bedrock	9

100 Pebble Count & Embeddedness of the armour layer of the stream bed

Measure the intermediate axis & the depth the substrate is buried in the surrounding material
If the site is bedrock, sand (<0.2 cm), or organic material, indicate S, B, or O

E: 1=completely embedded, 3/4 embedded, 1/2 embedded, 1/4 embedded, 0=unembedded

	Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E		Diameter (cm)	E
1	6.0		26	7.0		51	5.7		76	8.6	
2	2.4		27	7.5		52	4.9		77	4.0	
3	3.6		28	2.9		53	7.0		78	3.4	
4	2.8		29	3.8		54	6.0		79	5.5	
5	5.4		(30)	10.7	0	55	3.3		(80)	9.4	1/2
6	6.0		31	4.7		56	2.7		81	3.9	
7	2.7		32	12		57	5.5		82	8.3	
8	4.3		33	10.7		58	7.0		83	9.3	
9	14.5		34	5.8		59	3.4		84	8.0	
(10)	5.8	1/4	35	3.7		(60)	3.3	0	85	4.3	
11	5.6		36	3.0		61	5.5		86	12.8	
12	2.4		37	7.5		62	3.9		87	3.8	
13	5.6		38	5.2		63	6.4		88	5.1	
14	5.5		39	5.5		64	3.0		89	6.7	
15	4.3		(40)	7.7	0	65	6.9		(90)	8.3	1/4
16	5.8		41	2.9		66	3.8		91	3.6	
17	8.1		42	4.3		67	8.8		92	7.7	
18	2.2		43	3.8		68	8.2		93	2.9	
19	9.6		44	2.0		69	6.0		94	4.2	
(20)	1.7	0	45	5.7		(70)	5.6	0	95	2.1	
21	0.1		46	2.1		71	8.2		96	8.1	
22	2.5		47	7.9		72	3.7		97	2.5	
23	7.5		48	5.9		73	6.1		98	8.4	
24	4.0		49	3.1		74	11.6		99	8.3	
25	5.9		(50)	7.4	1/4	75	12.2		(100)	7.9	0

Note: *Dominant size category & subdominant size category based on substrate size class table will be determined in CABIN. Wolman D_{50} (median diameter), Wolman Dg (geometric mean diameter) and the % composition of the substrate classes are also automatically calculated with the 100 pebble measurements entered into CABIN. Median embeddedness score will also be calculated from data entered into CABIN.*

Field Crew bb, cm Site WRC-5

Sampling Date (D/M/Y) 11 SEP 2025

Water Chemistry **Time:** 1147 (24hr clock) **Time zone:** _____

Air Temp (°C) 12°C Water Temp 9.7°C (°C) pH 7.35

Specific Conductance (µs/cm) 235 DO (mg/L) 8.8 Turbidity (NTU) _____

Check if samples collected:

☐ TSS or TDS

☐ Major Ions (i.e. alkalinity, hardness, Cl, SO4), Nitrogen (i.e. total, nitrate, nitrite, dissolved, ammonia)

☐ Phosphorus (total, ortho, dissolved)

☐ Other_____

Slope (*indicate how slope was measured*)

☑ 1. **Calculated from map** *(small scale map recommended i.e. 1:20,000)*

slope = vertical distance/horizontal distance =_____

☐ 2. **Measured in field** *(circle device and fill out table according to device used: a or b)*

a. survey equipment **b. hand level & measuring tape** **c. clinometer** _____

Measurements	Upstream (US)	Downstream (DS)	Calculation
[a]Top Hairline (T)			
[a]Mid Hairline (ht) OR [b]Height of rod			DS_{ht}-US_{ht}=
[a]Bottom Hairline (B)			
[b]Distance (dis) OR [a]T-B x 100	[a]US_{dis}=T-B	[a]DS_{dis}=T-B	US_{dis}+DS_{dis}=
Slope (Δht/total dis)			

Velocity and Depth	1	2	3	4	5	6	
For wetted widths > 5m, measure a minimum of 5-6 equidistant locations; For wetted widths < 5m, measure 3-4 equidistant locations							
Distance (m) from: Left Bank Right Bank	0.6	1.1					
Depth (**D**) (cm)							
Depth (flow / stagnation)							
Flow depth (thin side ruler)							
Stagnant (wide side)							
3. Direct Measurement							
Velocity (**V**) (m/s)							

6.57s 2.43s

Field Crew: B. Beall, C. Maichle Site Code: ATWL-1a

Sampling Date (DD/MM/YY): 11/09/25

OHS: Site Inspection Sheet Completed

PRIMARY SITE DATA

CABIN Study Name: KEMESS SEMP/NMP Wetland Name: ATTICHIKA WETLANDS

Local Basin Name: ATTICHIKA Ecoregion:

Arrival time: 0745 Departure time: 1115

GEOGRAPHICAL DESCRIPTION/NOTES:

LAND USE POTENTIALLY INFLUENCING WETLAND (0–50 M)
LAND USE *(CHECK THOSE PRESENT)*:

INFORMATION SOURCE:

(Forest)	Field/Pasture	Agriculture	Residential/Urban
Logging	Mining	Commercial/Industrial	Other_____

DOMINANT LAND USE *(CHECK ONE)*:

INFORMATION SOURCE:

(Forest)	Field/Pasture	Agriculture	Residential/Urban
Logging	Mining	Commercial/Industrial	Other_____

Field Crew: B. Beall, C. Maichle Site Code: ATWL-1a

Sampling Date (DD/MM/YY): 11/09/25

LOCATION DATA

Latitude: _____N Longitude: _____W (deg/min/sec or decimal deg

Elevation: _____(masl) GPS Datum: GRS80 (NAD83/WGS84) Other _____

SITE LOCATION MAP DRAWING

Field Crew: B. Beall, C Maichle Site Code: ATWL-1a

Sampling Date (DD/MM/YY): 11/09/25

PHOTOS

Field sheet _____ North _____ East _____ South _____ West _____

Vegetation (in sampled area) _____ Exposed Substrate / Mud Flat _____

Acces point _____ Aerial Photo _____ Other _____ (i.e., Sampling photos)

WETLAND CHARACTERISTICS WHOLE WETLAND

HYDROLOGICAL TYPE

(Basin/Pond/Pool) Lacustrine Riverine

WATER-LEVEL STAGE AT THE TIME OF SAMPLING *(CHECK ONE)*:

Dry Vestigial Recessional coniferous trees Intermediate s

(Full) Flooded Overflowing Typical Depth 1.0 (m)

Field Crew: B. Beall, C Maichle Site Code: ATWL -1a

Sampling Date (DD/MM/YY): 11/09/25

VEGETATION COVER

HIGHER PLANTS

Emergent

0% | 1–5% | (6–25%) | 26–50% | 51–75% | 76–100%

Floating

(0%) | 1–5% | 6–25% | 26–50% | 51–75% | 76–100%

Submergent

0% | 1–5% | 6–25% | (26–50%) | 51–75% | 76–100%

ALGAE / CYANOBACTERIA

Algal bloom and/or cyanobacterial bloom

(Absent) | Present

FILAMENTOUS ALGAE

(Absent) | Present

BIOFILM PRESENT Yes | (No)

Comments (thickness, abundance, marl): _____

Field Crew: B. Beall, C. Maichle Site Code: ATWL-1a

Sampling Date (DD/MM/YY): 11/09/25

MARGINAL WETLAND

WETLAND MARGINAL VEGETATION 0–50 M AROUND WETLAND (CHECK THOSE PRESENT):

✓ Ferns/grasses/sedges	✓ Shrubs	Deciduous trees	✓ Coniferous trees	Agricultural crops

DOMINANT WETLAND MARGINAL VEGETATION *(CHECK ONE)*:

✓ Ferns/grasses/sedges	Shrubs	Deciduous trees	Coniferous trees	Agricultural crops

CANOPY COVER / SHADING

✓ Not shaded	Partially shaded	Fully shaded

MANAGED BUFFER STRIP

✓ Absent	Present	Natural setting, no buffer

Field Crew: B. Beall, C. Maichle Site Code: ATWL-1a

Sampling Date (DD/MM/YY): 11/09/25

WATER / SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Time (include time zone)			Check if samples collected:
Air Temp (°C)		8	Nutrients & TSS Major Ions Sediment sample Other _____
Water Temp (°C)		8.8	
pH		6.53	
Specific Conductance (µs/cm)		214	
DO (mg/L)	1/3 Depth	7.8	
~~7.6~~	5 cm above bottom	7.0	
DO (%)	1/3 Depth		
	5 cm above bottom		
Turbidity (NTU)			

SUBSTRATE SIZE CLASSES	CLASS SIZE
Organic cover (> 50% of area)	0
< 0.1 cm (sand/silt/clay)	(1)
0.1–0.2 cm (coarse sand)	2
0.2-1.6cm (gravel)	3

Field Crew: B. Beall, C. Maichle Site Code: ATWL-1a

Sampling Date (DD/MM/YY): 11/09/25

BENTHIC MACROINVERTEBRATE SAMPLES

Habitat(s) sampled: Emergent zone (Submergent zone) Other_____

EKMAN

~~400-MM MESH NET~~

	SWEEP 1	QA/QC 1	QA/QC 2	Preservative used
Person sampling				Formalin
Sampling time (i.e., 2 min)				
No. of sample jars				
Typical depth (in sampling area)				

Field Crew: B. Beall, C. Maichle Site Code: ATWL-1a

Sampling Date (DD/MM/YY): 11/09/25

SITE SAFETY INSPECTION

Notes to Safety Officer:
Remind crew to keep eyes open for anything unusual
Communicate any hazards continually
Pay attention to minor safety concerns: dehydration, hunger, fatigue, illness
Promote open communication among crew members

Site Inspected by _____:

Itinerary left with contact person Call-in procedure activated

THA/SWP read and signed by staff for

Wading ✓

Driving ✓

Wading ✓

West Nile / Hanta Virus / Lyme disease

Helicopter Safety (if applicable)

All staff trained in boat safety, swiftwater, first aid, helicopter egress, wilderness survival.
If not, specify who is not trained: _____

Boat Safety

Safety equipment (first aid, fire extinguisher, blanket, emergency kit, flares, safety survival bag)

Equipment and chemicals safely secured for transport

Boat moored safely, two ropes for securing

Shore & Site Hazards and Wading Safety

Wetland hazards identified (i.e., logs, deep pools) ✓

First Aid kit ✓

Bear Spray / Bear Bangers / Air Horns on site ✓

Poor weather (i.e., too hot or lightning) ✓

Signs of wildlife (bears, cougars, moose) ✓

Wetland hazards identified (i.e., logs, deep pools, slippery rocks, holes, muskrat / beaver run, foot entrapment in substrate) and listed ✓

PFDs worn; appropriate footwear, waders, wading belt; wading staff; Remote survival gear bag appropriate for sampling area
Notes:

Field Crew: B BEALL, C MAICHLE Site Code: ATWL-1B

Sampling Date (DD/MM/YY): 13 SEP 2025.

OHS: Site Inspection Sheet Completed

PRIMARY SITE DATA

CABIN Study Name: KEM12954 - SEMP/NMP Wetland Name: ATTICHIKA WETLANDS

Local Basin Name: FINLAY Ecoregion:

Arrival time: 1250 Departure time:

GEOGRAPHICAL DESCRIPTION/NOTES:

LAND USE POTENTIALLY INFLUENCING WETLAND (0–50 M)
LAND USE *(CHECK THOSE PRESENT)*: **INFORMATION SOURCE:**

(Forest)	Field/Pasture	Agriculture	Residential/Urban
Logging	Mining	Commercial/Industrial	Other

DOMINANT LAND USE *(CHECK ONE)*: **INFORMATION SOURCE:**

(Forest)	Field/Pasture	Agriculture	Residential/Urban
Logging	Mining	Commercial/Industrial	Other

PHOTO ORDER
N-S-E-W - POOLS - SUBSTRATE

Field Crew: BB, CM Site Code: ATWL-1B

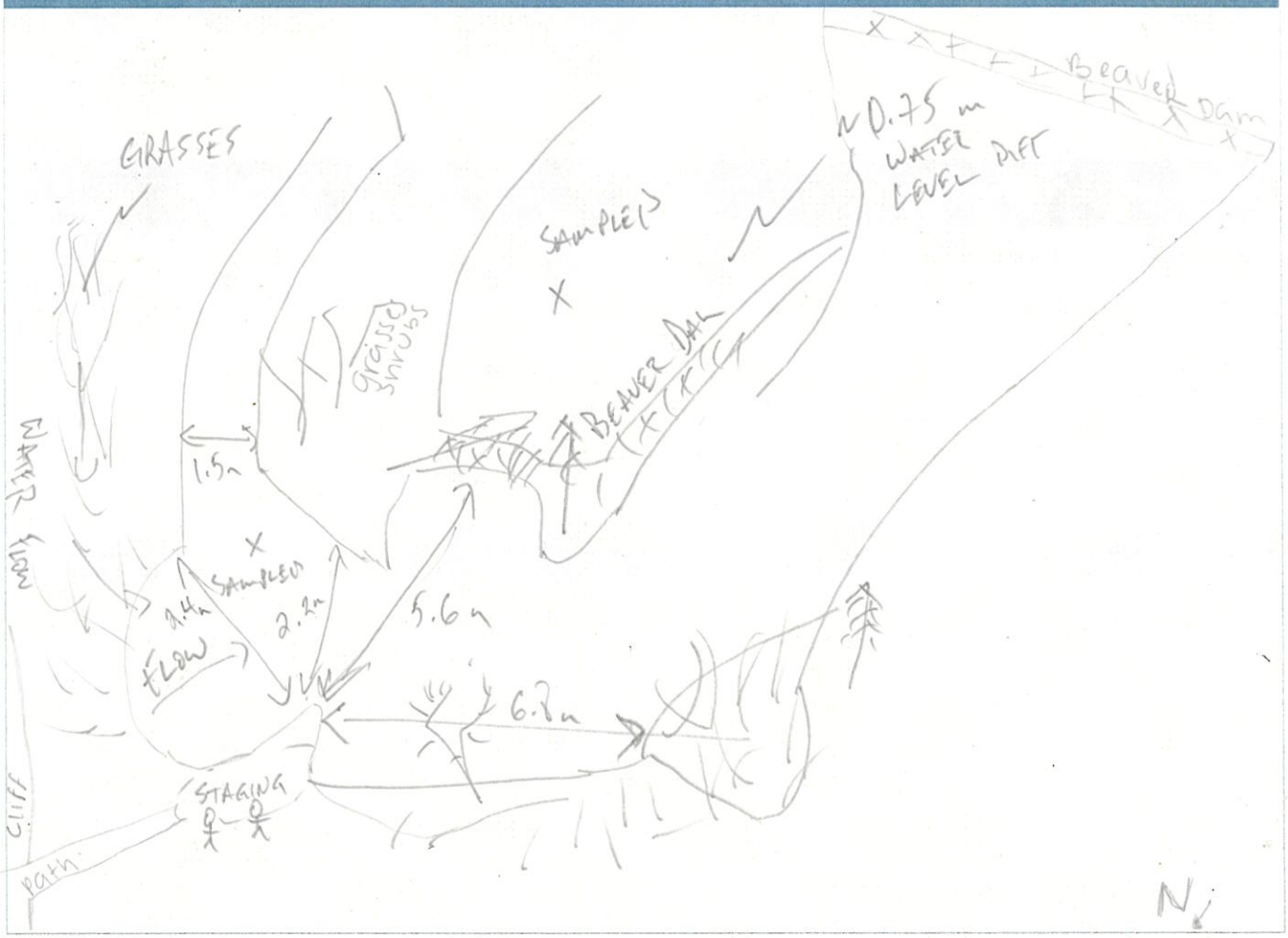
Sampling Date (DD/MM/YY): 13 SEP 2025

LOCATION DATA

Latitude: _____ N Longitude: _____ W (deg/min/sec or decimal deg

Elevation: _____ (masl) GPS Datum: GRS80 (NAD83/WGS84) Other _____

SITE LOCATION MAP DRAWING



Field Crew: BB, CM Site Code: ATWL-1b

Sampling Date (DD/MM/YY): 13/09/25

PHOTOS

Field sheet _____ North _____ East _____ South _____ West _____

Vegetation (in sampled area) _____ Exposed Substrate / Mud Flat _____

Acces point _____ Aerial Photo _____ Other _____ (i.e., Sampling photos)

WETLAND CHARACTERISTICS WHOLE WETLAND

HYDROLOGICAL TYPE

(Basin/Pond/Pool) Lacustrine Riverine

WATER-LEVEL STAGE AT THE TIME OF SAMPLING *(CHECK ONE)*:

Dry Vestigial Recessional coniferous trees Intermediate s

Full (Flooded) Overflowing Typical Depth _____(m)

Field Crew: BB, CM

Site Code: ATWL-1B

Sampling Date (DD/MM/YY): 13/09/25

VEGETATION COVER

HIGHER PLANTS

Emergent

0% | 1-5% | (6-25%) | 26-50% | 51-75% | 76-100%

Floating

(0%) | 1-5% | 6-25% | 26-50% | 51-75% | 76-100%

Submergent

0% | (1-5%) | 6-25% | 26-50% | 51-75% | 76-100%

ALGAE / CYANOBACTERIA

Algal bloom and/or cyanobacterial bloom

(Absent) | Present

FILAMENTOUS ALGAE

(Absent) | Present

BIOFILM PRESENT (Yes) | No

Comments (thickness, abundance, marl): _____

Field Crew: RB, CM Site Code: ATWL-16

Sampling Date (DD/MM/YY): 13/09/25

MARGINAL WETLAND

WETLAND MARGINAL VEGETATION 0–50 M AROUND WETLAND (CHECK THOSE PRESENT):

(Ferns/grasses/sedges) (Shrubs) Deciduous trees (Coniferous trees) Agricultural crops

DOMINANT WETLAND MARGINAL VEGETATION *(CHECK ONE)*:

(Ferns/grasses/sedges) Shrubs Deciduous trees Coniferous trees Agricultural crops

CANOPY COVER / SHADING # Mixed, some areas are not shaded

Not shaded (Partially shaded) Fully shaded

MANAGED BUFFER STRIP NA

Absent Present (Natural setting, no buffer)

Field Crew: RB, CM

Site Code: ATUL -1 B

Sampling Date (DD/MM/YY): 13 SEP 2025

WATER / SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Time (include time zone)		1250	Check if samples collected:
Air Temp (°C)		12°C	Nutrients & TSS
Water Temp (°C)		10.5°C	Major Ions
pH		6.65	Sediment sample
Specific Conductance (µs/cm)		193	Other
DO (mg/L)	1/3 Depth	6.6	
	5 cm above bottom	6.8	
DO (%)	1/3 Depth		
	5 cm above bottom		
Turbidity (NTU)			

SUBSTRATE SIZE CLASSES	CLASS SIZE
Organic cover (> 50% of area)	0
< 0.1 cm (sand/silt/clay)	(1)
0.1–0.2 cm (coarse sand)	2
0.2-1.6cm (gravel)	3

Field Crew: BB, CM Site Code: ATWL-1B

Sampling Date (DD/MM/YY): 13-SEP-2025

BENTHIC MACROINVERTEBRATE SAMPLES

Habitat(s) sampled: Emergent zone Submergent zone Other_____

EKMAN

~~400-MM MESH NET~~	SWEEP 1	QA/QC 1	QA/QC 2	Preservative used
Person sampling				
Sampling time (i.e., 2 min)				
No. of sample jars				
Typical depth (in sampling area)				

Field Crew: BB, CM Site Code: ATWL-1B

Sampling Date (DD/MM/YY): 13 SEP 2025

SITE SAFETY INSPECTION

Notes to Safety Officer:
Remind crew to keep eyes open for anything unusual
Communicate any hazards continually
Pay attention to minor safety concerns: dehydration, hunger, fatigue, illness
Promote open communication among crew members

Site Inspected by BB:

Itinerary left with contact person

Call-in procedure activated

THA/SWP read and signed by staff for

- Wading ✓
- Driving ✓
- Wading
- West Nile / Hanta Virus / Lyme disease
- Helicopter Safety (if applicable)
- All staff trained in boat safety, swiftwater, first aid, helicopter egress, wilderness survival.
  If not, specify who is not trained: _____

Boat Safety

- Safety equipment (first aid, fire extinguisher, blanket, emergency kit, flares, safety survival bag)
- Equipment and chemicals safely secured for transport
- Boat moored safely, two ropes for securing

Shore & Site Hazards and Wading Safety

- Wetland hazards identified (i.e., logs, deep pools) ✓
- First Aid kit ✓
- Bear Spray / Bear Bangers / Air Horns on site ✓
- Poor weather (i.e., too hot or lightning)
- Signs of wildlife (bears, cougars, moose)
- Wetland hazards identified (i.e., logs, deep pools, slippery rocks, holes, muskrat / beaver run, foot entrapment in substrate) and listed

PFDs worn; appropriate footwear, waders, wading belt; wading staff; Remote survival gear bag appropriate for sampling area
Notes:

Field Crew: M.D., CM

Site Code: ATWL-3

Sampling Date (DD/MM/YY): 16/09/23

OHS: Site Inspection Sheet Completed

PRIMARY SITE DATA

CABIN Study Name:

Wetland Name: ~~AEF~~

Local Basin Name: Attichika

Ecoregion:

Arrival time: 15:14

Departure time: 16:10

GEOGRAPHICAL DESCRIPTION/NOTES:

LAND USE POTENTIALLY INFLUENCING WETLAND (0–50 M)
LAND USE *(CHECK THOSE PRESENT)*:

INFORMATION SOURCE:

(Forest) Field/Pasture Agriculture Residential/Urban

Logging Mining Commercial/Industrial Other Wetland

DOMINANT LAND USE *(CHECK ONE)*:

INFORMATION SOURCE:

(Forest) Field/Pasture Agriculture Residential/Urban

Logging Mining Commercial/Industrial Other

Field Crew: MD, CM Site Code: ATWL-3

Sampling Date (DD/MM/YY): 16/09/25

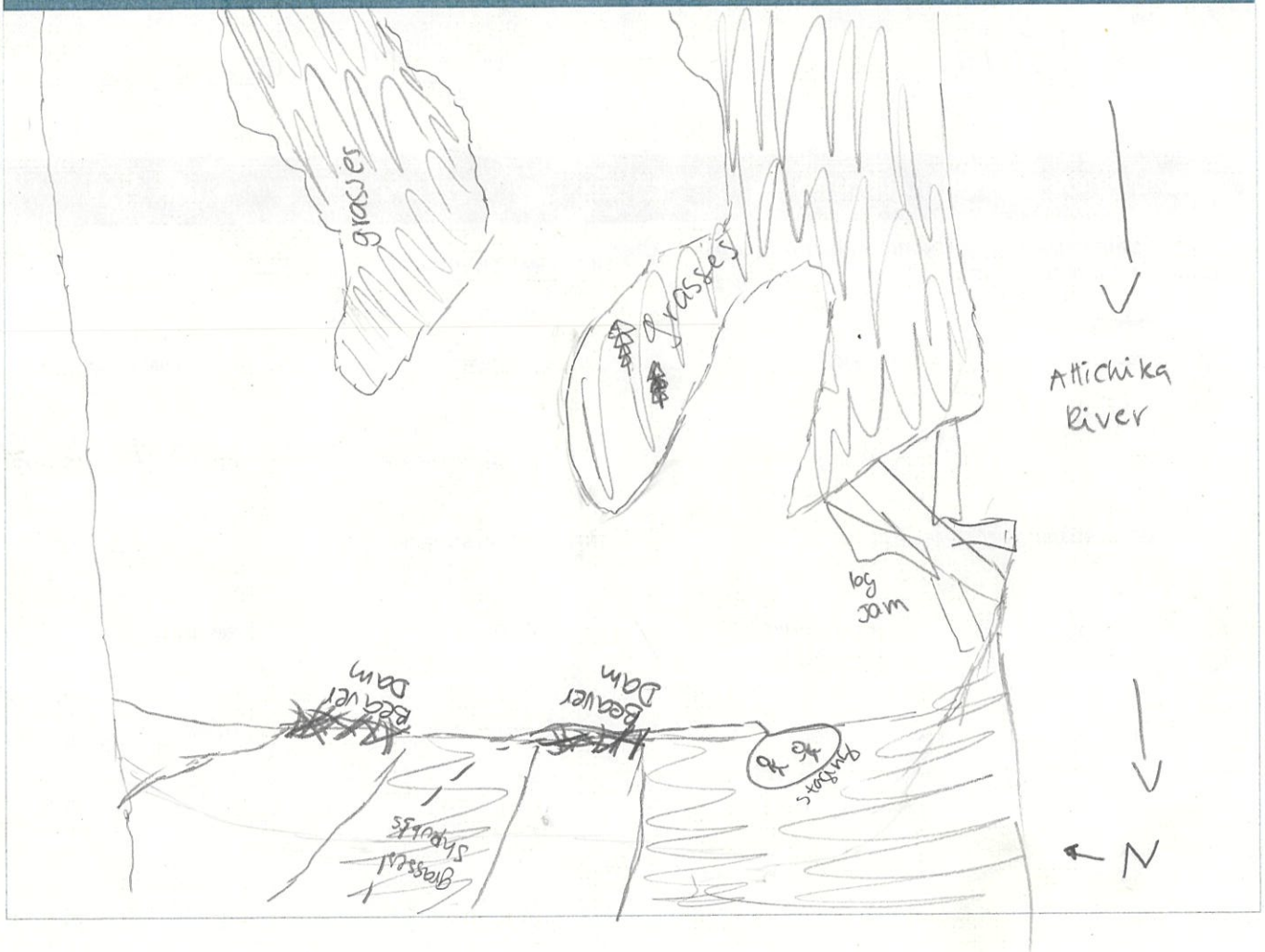
LOCATION DATA

Latitude: _____N Longitude: _____W (deg/min/sec or decimal deg

Elevation: _____(masl) GPS Datum: GRS80 (NAD83/WGS84) Other _____

9V 632901 6317504

SITE LOCATION MAP DRAWING



Field Crew: MD, CM Site Code: ATWL-3

Sampling Date (DD/MM/YY): 16/09/23

PHOTOS

Field sheet _____ North ✓ East ✓ South ✓ West ✓

Vegetation (in sampled area) _____ Exposed Substrate / Mud Flat _____

Acces point _____ Aerial Photo _____ Other _____ (i.e., Sampling photos)

C

N, S, W, E, veg in water, exposed sub.

WETLAND CHARACTERISTICS WHOLE WETLAND

HYDROLOGICAL TYPE

Basin/Pond/Pool (circled) Lacustrine Riverine

WATER-LEVEL STAGE AT THE TIME OF SAMPLING *(CHECK ONE)*:

Dry Vestigial Recessional coniferous trees Intermediate s

Full (circled) Flooded MD Overflowing Typical Depth 0.8 m. (m)

Field Crew: MD

Site Code: ATWL-3

Sampling Date (DD/MM/YY): 16/09/25

VEGETATION COVER

HIGHER PLANTS

Emergent

0% | (1-5%) | 6-25% | 26-50% | 51-75% | 76-100%

Floating

0% | 1-5% | (6-25%) | 26-50% | 51-75% | 76-100%

Submergent

0% | (1-5%) | 6-25% | 26-50% | 51-75% | 76-100%

ALGAE / CYANOBACTERIA

Algal bloom and/or cyanobacterial bloom

(Absent) | Present

FILAMENTOUS ALGAE

(Absent) | Present

BIOFILM PRESENT Yes | No

Comments (thickness, abundance, marl):

Field Crew: MD, CM

Site Code: ATWL-3

Sampling Date (DD/MM/YY): 16/09/23

MARGINAL WETLAND

WETLAND MARGINAL VEGETATION 0–50 M AROUND WETLAND (CHECK THOSE PRESENT):

(Ferns/grasses/sedges) (Shrubs) Deciduous trees (Coniferous trees) Agricultural crops

DOMINANT WETLAND MARGINAL VEGETATION *(CHECK ONE)*:

(Ferns/grasses/sedges) Shrubs Deciduous trees Coniferous trees Agricultural crops

CANOPY COVER / SHADING

(Not shaded) Partially shaded Fully shaded

MANAGED BUFFER STRIP

(Absent) Present Natural setting, no buffer

Field Crew: MD, CM

Site Code: ATWL-3

Sampling Date (DD/MM/YY): 16/09/25

WATER / SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Time (include time zone)			Check if samples collected:
Air Temp (°C)			Nutrients & TSS Major Ions Sediment sample Other _____
Water Temp (°C)		14.1	
pH		6.41	
Specific Conductance (µs/cm)		181	
DO (mg/L)	1/3 Depth	7.6	
	5 cm above bottom		
DO (%)	1/3 Depth		
	5 cm above bottom		
Turbidity (NTU)			

SUBSTRATE SIZE CLASSES	CLASS SIZE
Organic cover (> 50% of area)	0
< 0.1 cm (sand/silt/clay)	1
0.1–0.2 cm (coarse sand)	2
0.2-1.6cm (gravel)	3

Field Crew: MD, CM

Site Code: ATWL-3

Sampling Date (DD/MM/YY): 16/09/25

BENTHIC MACROINVERTEBRATE SAMPLES

Habitat(s) sampled: Emergent zone Submergent zone Other_____

EKMAN

400-MM MESH NET	~~SWEEP 1~~	QA/QC 1	QA/QC 2	Preservative used
Person sampling				
Sampling time (i.e., 2 min)				
No. of sample jars				
Typical depth (in sampling area)				

Field Crew: MD, CM

Site Code: ATWL-3

Sampling Date (DD/MM/YY): 16/09/25

SITE SAFETY INSPECTION

Notes to Safety Officer:
Remind crew to keep eyes open for anything unusual
Communicate any hazards continually
Pay attention to minor safety concerns: dehydration, hunger, fatigue, illness
Promote open communication among crew members

Site Inspected by CM

Itinerary left with contact person

Call-in procedure activated

THA/~~SWP read~~ and signed by staff for

Wading

Driving

Wading

West Nile / Hanta Virus / Lyme disease

Helicopter Safety (if applicable)

All staff trained in boat safety, swiftwater, first aid, helicopter egress, wilderness survival.
If not, specify who is not trained: _____

Boat Safety

Safety equipment (first aid, fire extinguisher, blanket, emergency kit, flares, safety survival bag)

Equipment and chemicals safely secured for transport

Boat moored safely, two ropes for securing

Shore & Site Hazards and Wading Safety

Wetland hazards identified (i.e., logs, deep pools)

First Aid kit

Bear Spray / Bear Bangers / Air Horns on site

Poor weather (i.e., too hot or lightning)

Signs of wildlife (bears, cougars, moose)

Wetland hazards identified (i.e., logs, deep pools, slippery rocks, holes, muskrat / beaver run, foot entrapment in substrate) and listed

PFDs worn; appropriate footwear, waders, wading belt; wading staff; Remote survival gear bag appropriate for sampling area

Notes:

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-13
Sampling Date	Sep 10 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.95158 N, 126.72110 W
Altitude	1148
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	6

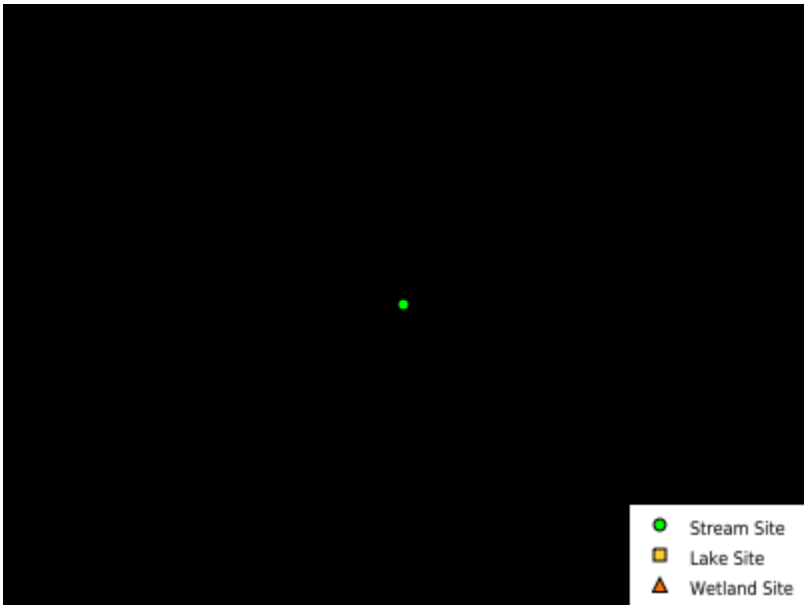


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	0.7%	36.8%	11.7%	50.9%
CABIN Assessment of EEM-13 on Sep 10, 2025	Divergent			

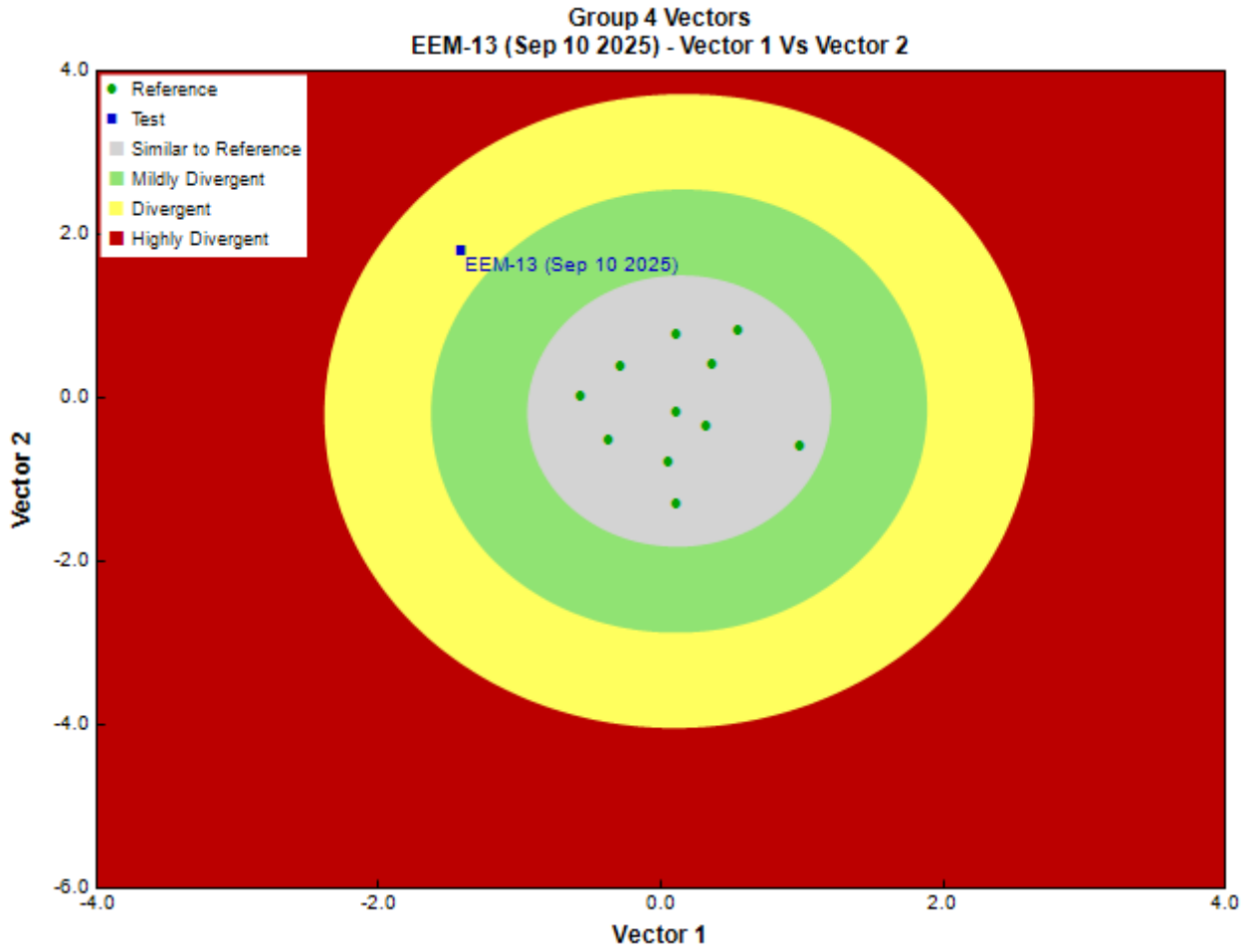


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	25/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes		3	12.0
			Hygrobatidae	19	76.0
			Sperchontidae	2	8.0
	Insecta	Diptera		1	4.0
			Ceratopogonidae	8	32.0
			Chironomidae	139	556.0
			Empididae	1	4.0
			Tipulidae	3	12.0
		Ephemeroptera	Ameletidae	10	40.0
			Baetidae	3	12.0
			Ephemerellidae	13	52.0
			Heptageniidae	33	132.0
			Leptophlebiidae	6	24.0
		Plecoptera	Capniidae	8	32.0
			Chloroperlidae	28	112.0
			Nemouridae	1	4.0

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Perlodidae	3	12.0
		Trichoptera	Brachycentridae	1	4.0
			Hydropsychidae	1	4.0
			Hydroptilidae	4	16.0
			Lepidostomatidae	4	16.0
			Rhyacophilidae	1	4.0
			Total	292	1,168.0

Metrics

Name	EEM-13	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.87	0.3 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	
Functional Measures		
% Filterers	--	0.8
% Gatherers	304.8	41.8 ± 23.4
% Predatores	286.0	22.0 ± 14.0
% Scrapers	70.2	65.7 ± 15.9
% Shredder	29.1	18.3 ± 13.0
Number Of Individuals		
% Chironomidae	48.3	11.9 ± 8.7
% Ephemeroptera	22.6	60.0 ± 14.5
% Ephemeroptera that are Baetidae	4.6	69.7 ± 25.5
% EPT Individuals	40.3	80.4 ± 10.5
% of 2 dominant taxa	59.7	65.4 ± 13.8
% of 5 dominant taxa	80.6	87.2 ± 9.6
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	9.1	29.9 ± 39.0
No. EPT individuals/Chironomids+EPT Individuals	0.5	0.9 ± 0.1
Total Abundance	233.6	3795.7 ± 2058.5
Richness		
Diptera taxa	4.0	3.4 ± 1.3
EPT Individuals (Sum)	92.8	2936.8 ± 1440.4
EPT taxa (no)	14.0	10.6 ± 3.7
Simpson's Diversity	0.7	0.7 ± 0.1
Simpson's Evenness	0.2	0.2 ± 0.0

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-13
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.99
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.98
Nemouridae	100%	100%	100%	100%	1.00

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.09
RIVPACS : Observed taxa P>0.50	13.00
RIVPACS : O:E (p > 0.5)	1.08
RIVPACS : Expected taxa P>0.70	6.53
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	1.07

Habitat Description

Variable	EEM-13	Predicted Group Reference Mean ±SD
Channel		
Depth-Avg (cm)	11.0	13.3 ± 5.4
Depth-BankfullMinusWetted (cm)	60.00	53.87 ± 51.29
Depth-Max (cm)	15.0	18.9 ± 9.1
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.82 ± 1.08
Reach-DomStreamsideVeg (Category(1-4))	1	3 ± 1
Reach-Pools (Binary)	0	0 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	1	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.67	0.41 ± 0.16
Velocity-Max (m/s)	0.85	0.55 ± 0.20
Width-Bankfull (m)	22.4	12.5 ± 8.4
Width-Wetted (m)	13.6	7.1 ± 6.0
Climate		
Precip05_MAY (mm)	47.17864	47.66302 ± 4.53216
PrecipTotal_ANNUAL (mm)	633.93766	602.51495 ± 62.90412
Temp02_FEBmin (Degrees Celsius)	-15.88409	-14.81759 ± 0.81375
Substrate Data		
Dominant-1st (Category(0-9))	4	6 ± 1
Dominant-2nd (Category(0-9))	5	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	3	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	61.91068	56.76438 ± 45.53779
Topography		
Slope30-50% (%)	12.98880	15.35684 ± 10.85185
Water Chemistry		
General-DO (mg/L)	13.0000000	10.2377778 ± 1.6908709
General-pH (pH)	6.2	8.0 ± 0.4
General-SpCond (µS/cm)	97.0000000	388.5222222 ± 67.8535330
General-TempWater (Degrees Celsius)	8.8000000	10.9054545 ± 3.8228167

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-13 [Q2]
Sampling Date	Sep 10 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.95158 N, 126.72110 W
Altitude	1148
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	6

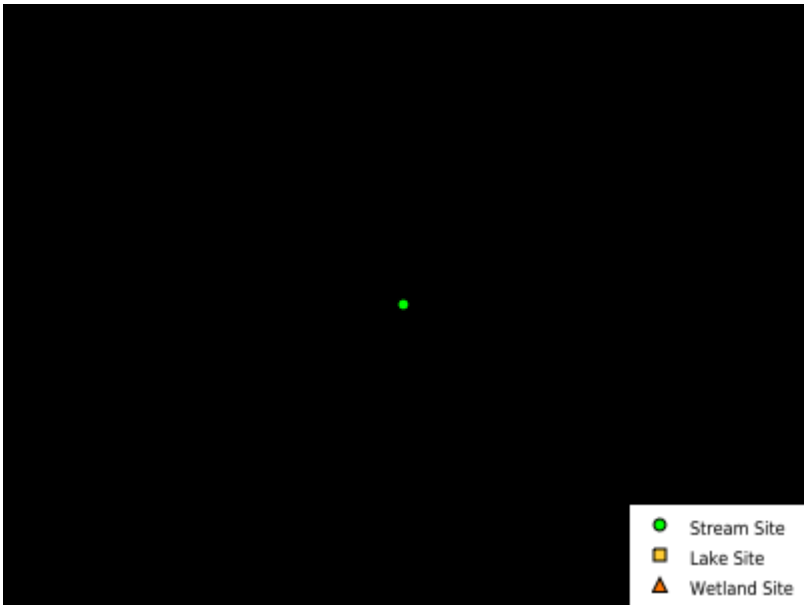


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	0.7%	36.8%	11.7%	50.9%
CABIN Assessment of EEM-13 on Sep 10, 2025	Divergent			

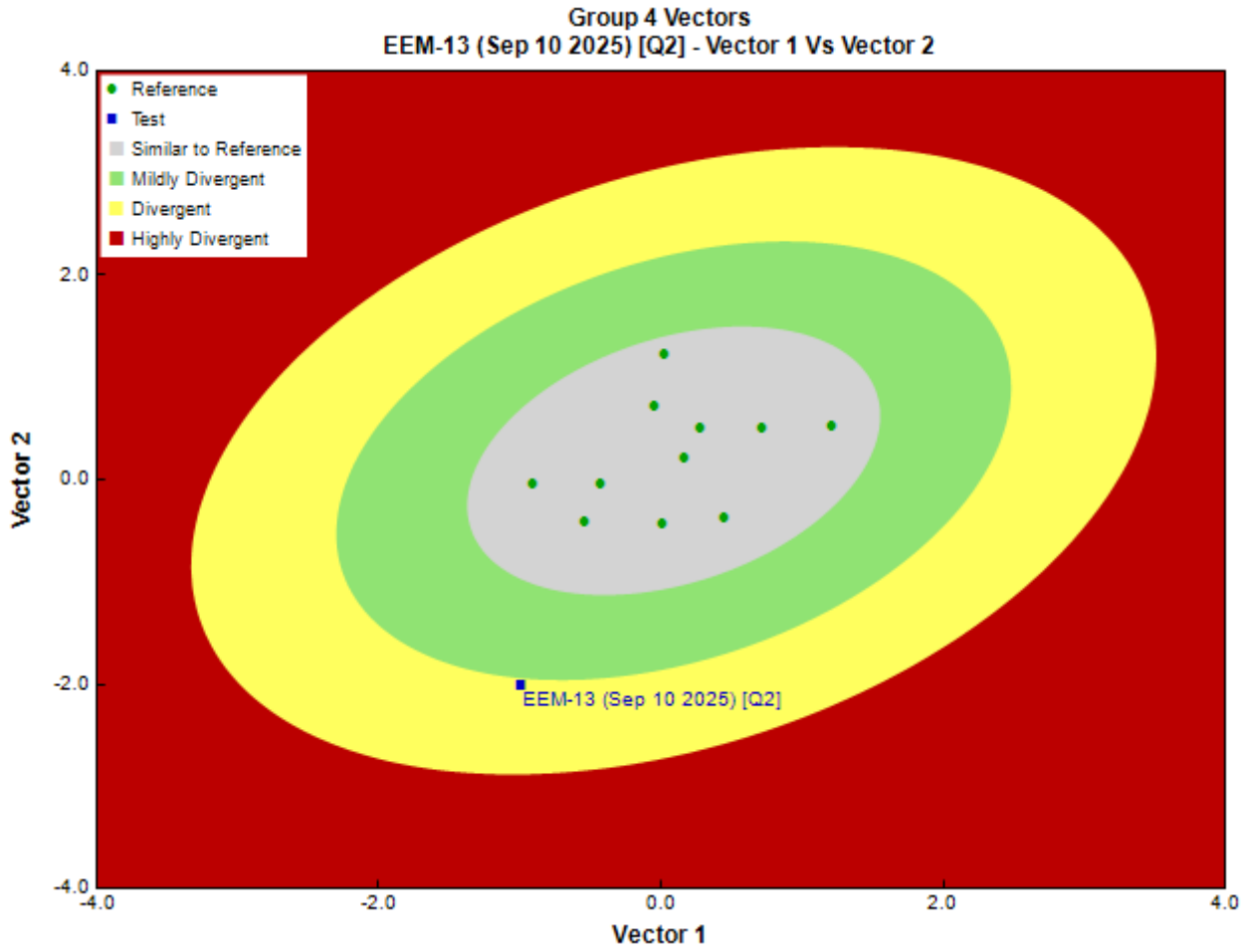


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	26/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Aturidae	1	3.8
			Feltriidae	2	7.7
			Hygrobatidae	14	53.8
			Lebertiidae	3	11.5
	Insecta	Diptera		1	3.8
			Ceratopogonidae	10	38.4
			Chironomidae	138	530.5
			Tipulidae	1	3.8
		Ephemeroptera	Ameletidae	2	7.7
			Baetidae	6	23.1
			Ephemerellidae	19	73.1
			Heptageniidae	66	253.9
		Plecoptera	Capniidae	6	23.1
			Chloroperlidae	18	69.2
			Nemouridae	4	15.3
			Perlidae	1	3.8

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Perlodidae	2	7.7
		Trichoptera	Brachycentridae	1	3.8
			Hydropsychidae	1	3.8
			Hydroptilidae	2	7.7
			Lepidostomatidae	1	3.8
			Limnephilidae	1	3.8
			Rhyacophilidae	4	15.4
			Total	304	1,168.5

Metrics

Name	EEM-13	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.86	0.3 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	
Functional Measures		
% Filterers	--	0.8
% Gatherers	276.3	41.8 ± 23.4
% Predatores	271.4	22.0 ± 14.0
% Scrapers	125.0	65.7 ± 15.9
% Shredder	23.0	18.3 ± 13.0
Number Of Individuals		
% Chironomidae	45.5	11.9 ± 8.7
% Ephemeroptera	30.7	60.0 ± 14.5
% Ephemeroptera that are Baetidae	6.5	69.7 ± 25.5
% EPT Individuals	44.2	80.4 ± 10.5
% of 2 dominant taxa	67.3	65.4 ± 13.8
% of 5 dominant taxa	84.2	87.2 ± 9.6
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	10.0	29.9 ± 39.0
No. EPT individuals/Chironomids+EPT Individuals	0.5	0.9 ± 0.1
Total Abundance	233.8	3795.7 ± 2058.5
Richness		
Diptera taxa	3.0	3.4 ± 1.3
EPT Individuals (Sum)	103.1	2936.8 ± 1440.4
EPT taxa (no)	15.0	10.6 ± 3.7
Simpson's Diversity	0.7	0.7 ± 0.1
Simpson's Evenness	0.2	0.2 ± 0.0

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-13
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.99
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.98
Nemouridae	100%	100%	100%	100%	1.00

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.09
RIVPACS : Observed taxa P>0.50	11.00
RIVPACS : O:E (p > 0.5)	0.91
RIVPACS : Expected taxa P>0.70	6.53
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	1.07

Habitat Description

Variable	EEM-13	Predicted Group Reference Mean ±SD
Channel		
Depth-Avg (cm)	11.0	13.3 ± 5.4
Depth-BankfullMinusWetted (cm)	60.00	53.87 ± 51.29
Depth-Max (cm)	15.0	18.9 ± 9.1
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.82 ± 1.08
Reach-DomStreamsideVeg (Category(1-4))	1	3 ± 1
Reach-Pools (Binary)	0	0 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	1	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.67	0.41 ± 0.16
Velocity-Max (m/s)	0.85	0.55 ± 0.20
Width-Bankfull (m)	22.4	12.5 ± 8.4
Width-Wetted (m)	13.6	7.1 ± 6.0
Climate		
Precip05_MAY (mm)	47.17864	47.66302 ± 4.53216
PrecipTotal_ANNUAL (mm)	633.93766	602.51495 ± 62.90412
Temp02_FEBmin (Degrees Celsius)	-15.88409	-14.81759 ± 0.81375
Substrate Data		
Dominant-1st (Category(0-9))	4	6 ± 1
Dominant-2nd (Category(0-9))	5	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	3	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	61.91068	56.76438 ± 45.53779
Topography		
Slope30-50% (%)	12.98880	15.35684 ± 10.85185
Water Chemistry		
General-DO (mg/L)	13.0000000	10.2377778 ± 1.6908709
General-pH (pH)	6.2	8.0 ± 0.4
General-SpCond (µS/cm)	97.0000000	388.5222222 ± 67.8535330
General-TempWater (Degrees Celsius)	8.8000000	10.9054545 ± 3.8228167

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-13 [Q3]
Sampling Date	Sep 10 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.95158 N, 126.72110 W
Altitude	1148
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	6

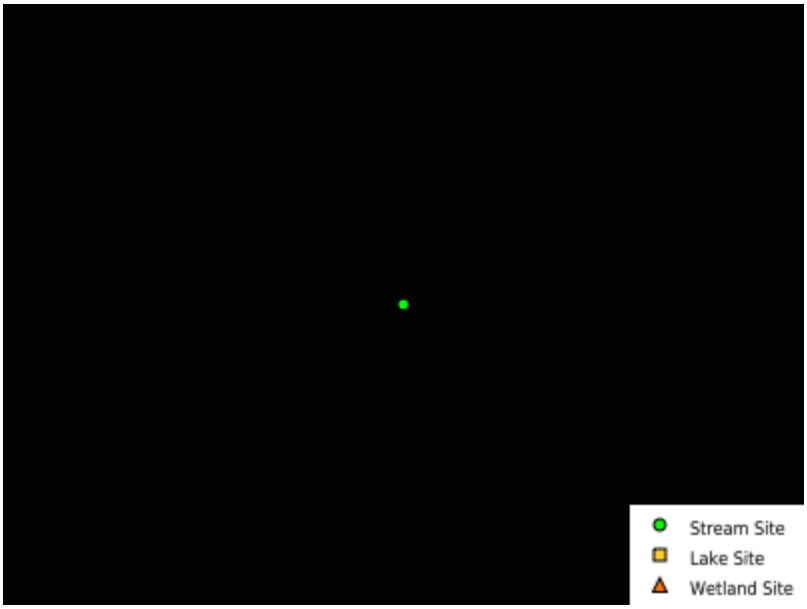


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	0.7%	36.8%	11.7%	50.9%
CABIN Assessment of EEM-13 on Sep 10, 2025	Divergent			

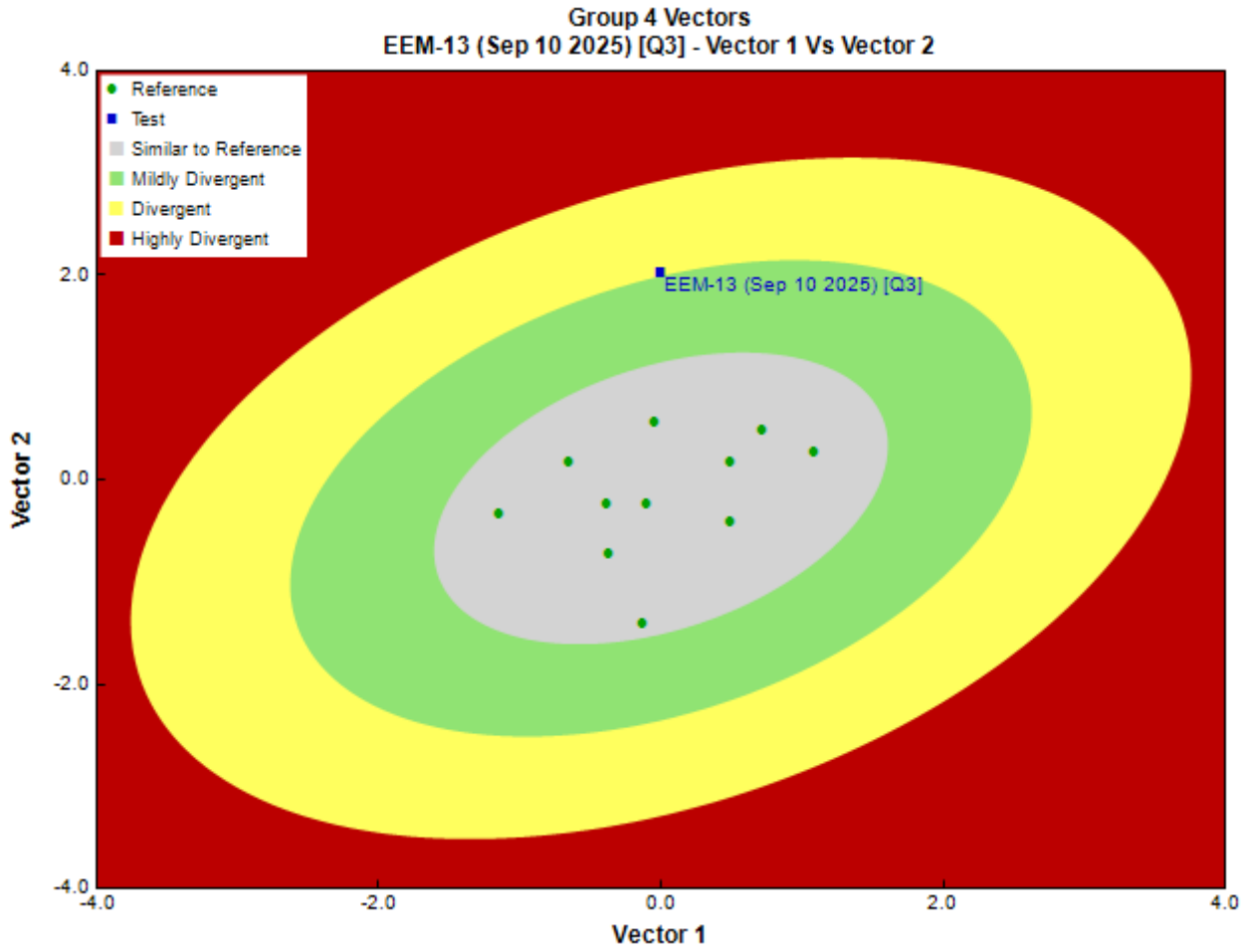


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	15/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes		2	13.3
			Sperchontidae	1	6.7
	Insecta	Diptera		1	6.7
			Ceratopogonidae	7	46.7
			Chironomidae	126	840.1
			Tipulidae	2	13.3
		Ephemeroptera	Ameletidae	2	13.3
			Baetidae	15	100.0
			Ephemerellidae	16	106.7
			Heptageniidae	59	393.4
		Plecoptera		2	13.3
			Capniidae	8	53.3
			Chloroperlidae	11	73.4
			Nemouridae	3	20.0
			Perlidae	3	20.0
			Perlodidae	7	46.7

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Trichoptera	Brachycentridae	5	33.4
			Glossosomatidae	3	20.0
			Hydroptilidae	2	13.3
			Rhyacophilidae	2	13.3
			Total	277	1,846.9

Metrics

Name	EEM-13	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.78	0.3 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	
Functional Measures		
% Filterers	--	0.8
% Gatherers	281.6	41.8 ± 23.4
% Predatores	259.9	22.0 ± 14.0
% Scrapers	142.6	65.7 ± 15.9
% Shredder	32.5	18.3 ± 13.0
Number Of Individuals		
% Chironomidae	46.3	11.9 ± 8.7
% Ephemeroptera	33.8	60.0 ± 14.5
% Ephemeroptera that are Baetidae	16.3	69.7 ± 25.5
% EPT Individuals	50.0	80.4 ± 10.5
% of 2 dominant taxa	68.0	65.4 ± 13.8
% of 5 dominant taxa	83.5	87.2 ± 9.6
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	0.0	29.9 ± 39.0
No. EPT individuals/Chironomids+EPT Individuals	0.5	0.9 ± 0.1
Total Abundance	369.3	3795.7 ± 2058.5
Richness		
Diptera taxa	3.0	3.4 ± 1.3
EPT Individuals (Sum)	181.3	2936.8 ± 1440.4
EPT taxa (no)	13.0	10.6 ± 3.7
Simpson's Diversity	0.7	0.7 ± 0.1
Simpson's Evenness	0.2	0.2 ± 0.0

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-13
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.99
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.98
Nemouridae	100%	100%	100%	100%	1.00

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.09
RIVPACS : Observed taxa P>0.50	11.00
RIVPACS : O:E (p > 0.5)	0.91
RIVPACS : Expected taxa P>0.70	6.53
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	1.07

Habitat Description

Variable	EEM-13	Predicted Group Reference Mean ±SD
Channel		

Habitat Description

Variable	EEM-13	Predicted Group Reference Mean ±SD
Depth-Avg (cm)	11.0	13.3 ± 5.4
Depth-BankfullMinusWetted (cm)	60.00	53.87 ± 51.29
Depth-Max (cm)	15.0	18.9 ± 9.1
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.82 ± 1.08
Reach-DomStreamsideVeg (Category(1-4))	1	3 ± 1
Reach-Pools (Binary)	0	0 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	1	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.67	0.41 ± 0.16
Velocity-Max (m/s)	0.85	0.55 ± 0.20
Width-Bankfull (m)	22.4	12.5 ± 8.4
Width-Wetted (m)	13.6	7.1 ± 6.0
Climate		
Precip05_MAY (mm)	47.17864	47.66302 ± 4.53216
PrecipTotal_ANNUAL (mm)	633.93766	602.51495 ± 62.90412
Temp02_FEBmin (Degrees Celsius)	-15.88409	-14.81759 ± 0.81375
Substrate Data		
Dominant-1st (Category(0-9))	4	6 ± 1
Dominant-2nd (Category(0-9))	5	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	3	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	61.91068	56.76438 ± 45.53779
Topography		
Slope30-50% (%)	12.98880	15.35684 ± 10.85185
Water Chemistry		
General-DO (mg/L)	13.0000000	10.2377778 ± 1.6908709
General-pH (pH)	6.2	8.0 ± 0.4
General-SpCond (µS/cm)	97.0000000	388.5222222 ± 67.8535330
General-TempWater (Degrees Celsius)	8.8000000	10.9054545 ± 3.8228167

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-17
Sampling Date	Sep 13 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.97869 N, 126.78901 W
Altitude	1144
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

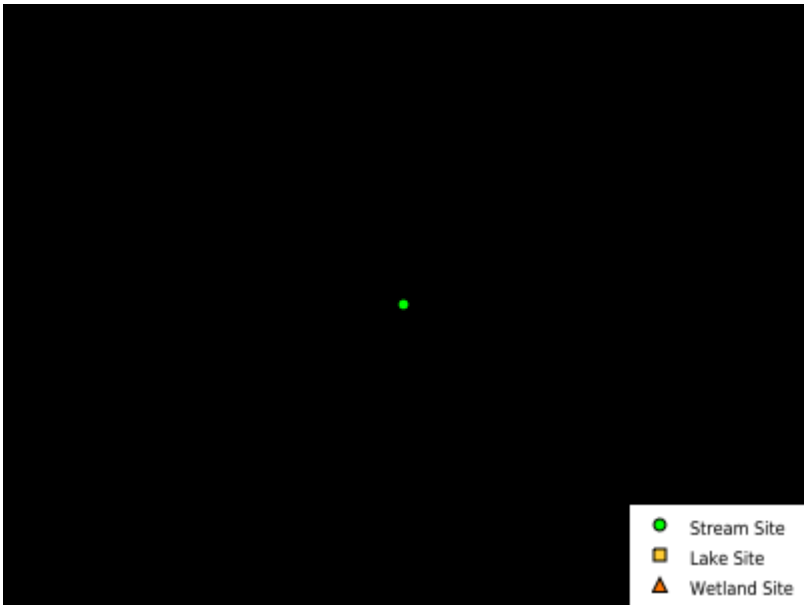


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	42.4%	19.0%	37.5%
CABIN Assessment of EEM-17 on Sep 13, 2025	Mildly Divergent			

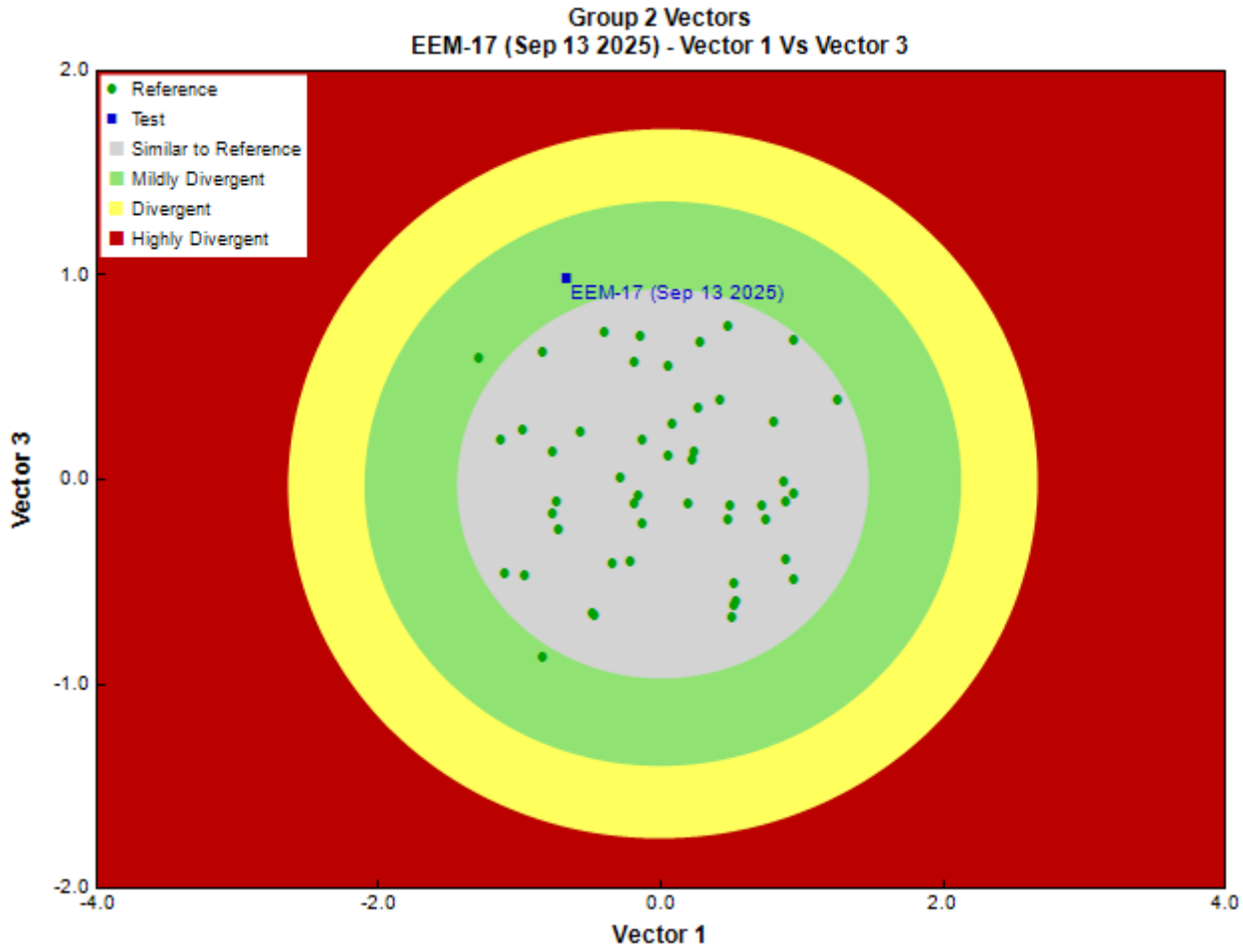


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	8/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Hygrobatidae	1	12.5
			Stygothrombiidae	1	12.5
			Torrenticolidae	2	25.0
	Insecta	Diptera	Ceratopogonidae	5	62.5
			Chironomidae	89	1,112.5
			Empididae	1	12.5
			Simuliidae	2	25.0
			Tipulidae	7	87.5
		Ephemeroptera	Baetidae	40	500.0
			Ephemerellidae	23	287.5
			Heptageniidae	54	675.0
		Plecoptera		5	62.5
			Capniidae	2	25.0
			Chloroperlidae	4	50.0
			Leuctridae	4	50.0
			Nemouridae	15	187.5

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Perlidae	1	12.5
			Perlodidae	2	25.0
			Taeniopterygidae	11	137.5
		Trichoptera	Brachycentridae	15	187.5
			Glossosomatidae	24	300.0
			Hydropsychidae	8	100.0
			Rhyacophilidae	2	25.0
			Total	318	3,975.0

Metrics

Name	EEM-17	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.46	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	268.1	43.3 ± 16.5
% Predatores	194.0	19.1 ± 10.1
% Scrapers	219.2	52.3 ± 15.7
% Shredder	85.2	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	28.5	10.4 ± 9.6
% Ephemeroptera	37.5	46.7 ± 16.6
% Ephemeroptera that are Baetidae	34.2	21.4 ± 12.7
% EPT Individuals	65.4	84.0 ± 11.1
% of 2 dominant taxa	45.8	52.3 ± 13.6
% of 5 dominant taxa	73.7	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	16.7	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.7	0.9 ± 0.1
Total Abundance	792.5	3078.9 ± 2738.9
Richness		
Diptera taxa	5.0	3.3 ± 1.1
EPT Individuals (Sum)	510.0	2528.6 ± 2360.5
EPT taxa (no)	14.0	12.6 ± 1.9
Simpson's Diversity	0.9	0.8 ± 0.1
Simpson's Evenness	0.3	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-17
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.97
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.21
RIVPACS : Observed taxa P>0.50	14.00
RIVPACS : O:E (p > 0.5)	1.15
RIVPACS : Expected taxa P>0.70	7.21
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	1.11

Habitat Description

Variable	EEM-17	Predicted Group Reference Mean ±SD
Channel		
Depth-Avg (cm)	43.8	17.9 ± 7.8
Depth-BankfullMinusWetted (cm)	100.00	64.13 ± 71.10
Depth-Max (cm)	60.0	28.3 ± 13.3
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	0.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	1	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.53	0.59 ± 0.37
Velocity-Max (m/s)	0.72	0.85 ± 0.65
Width-Bankfull (m)	26.7	11.2 ± 6.5
Width-Wetted (m)	14.5	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.27476	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	634.32538	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-16.00369	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	7	6 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	4	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	2	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.36211	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.38404	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.4000000	10.6921875 ± 2.6429965
General-pH (pH)	7.1	8.1 ± 0.4
General-SpCond (µS/cm)	147.0000000	310.0230769 ± 190.2138235
General-TempWater (Degrees Celsius)	8.6000000	8.1378000 ± 2.3543631

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-17 [Q2]
Sampling Date	Sep 13 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.97869 N, 126.78901 W
Altitude	1144
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

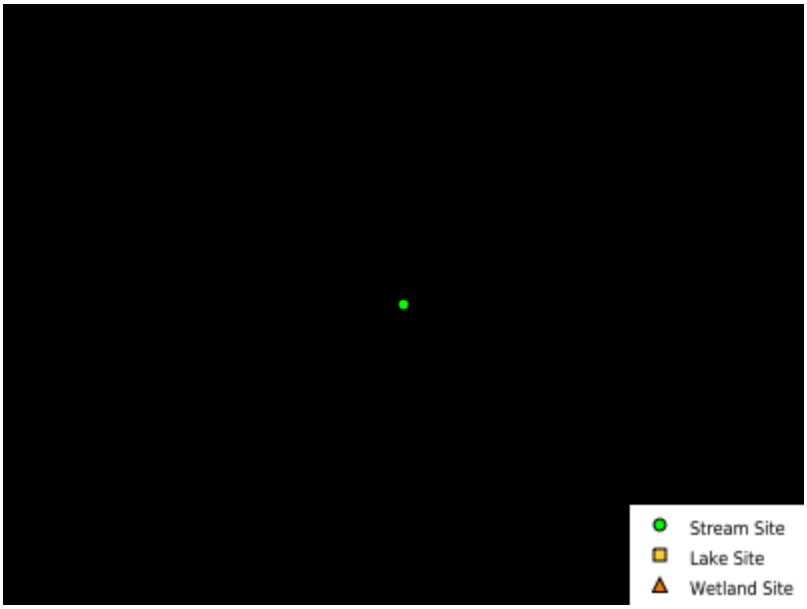


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	42.4%	19.0%	37.5%
CABIN Assessment of EEM-17 on Sep 13, 2025	Divergent			

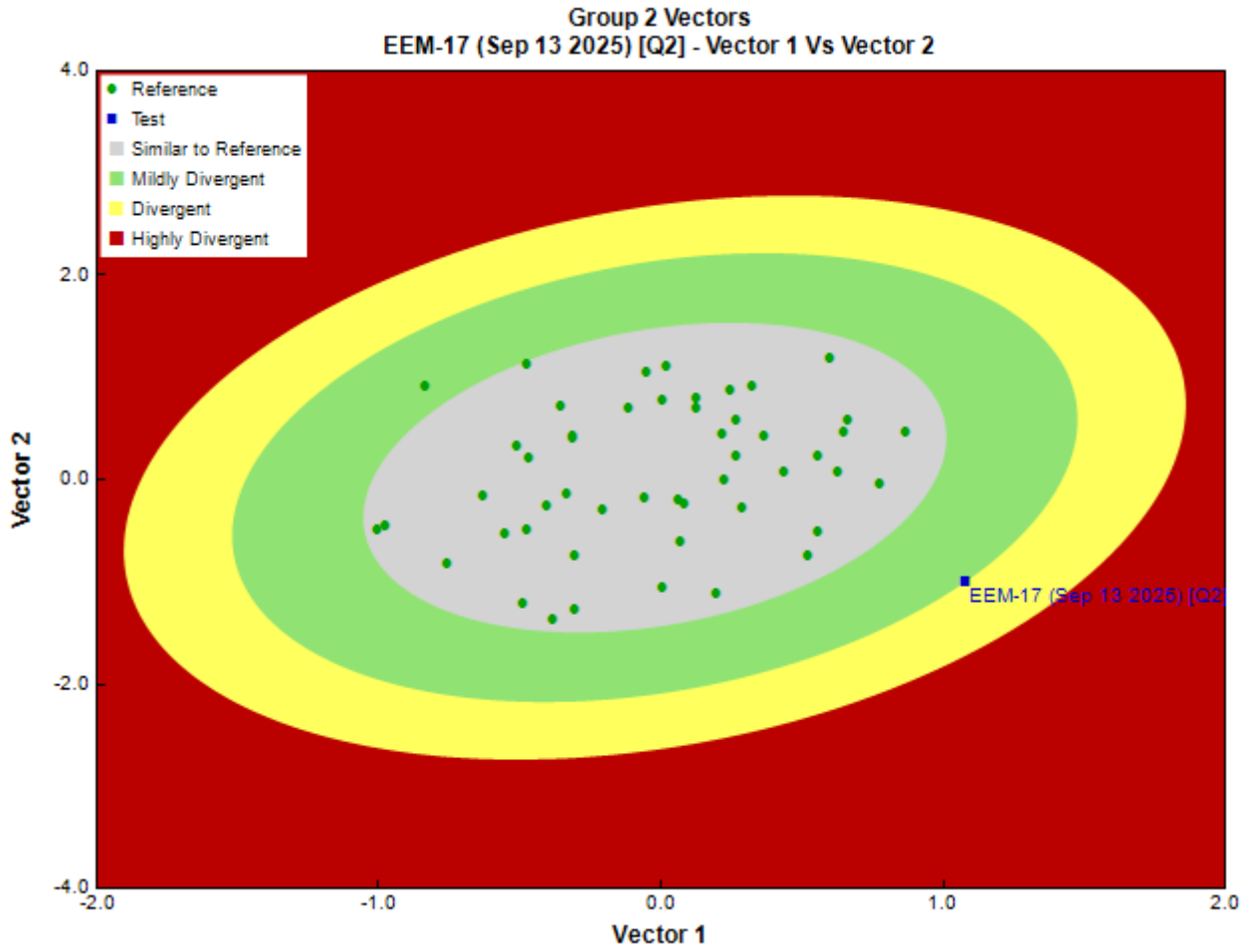


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	9/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Annelida	Clitellata		Enchytraeidae	1	11.1
Arthropoda	Arachnida	Trombidiformes		1	11.1
			Hygrobatidae	5	55.5
			Lebertiidae	2	22.2
			Sperchontidae	2	22.2
			Stygothrombiidae	1	11.1
			Torrenticolidae	3	33.3
	Insecta	Diptera	Ceratopogonidae	3	33.3
			Chironomidae	148	1,644.4
			Empididae	3	33.3
			Tipulidae	5	55.5
		Ephemeroptera	Ameletidae	2	22.2
			Baetidae	26	288.9
			Ephemerellidae	26	288.9
			Heptageniidae	20	222.2
			Leptophlebiidae	1	11.1

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Plecoptera		1	11.1
			Capniidae	5	55.6
			Chloroperlidae	5	55.5
			Nemouridae	11	122.2
			Perlidae	1	11.1
			Perlodidae	3	33.3
			Taeniopterygidae	2	22.2
		Trichoptera	Brachycentridae	14	155.6
			Glossosomatidae	26	288.9
			Hydropsychidae	6	66.6
			Hydroptilidae	2	22.2
			Rhyacophilidae	1	11.1
			Total	326	3,621.7

Metrics

Name	EEM-17	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.59	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	334.4	43.3 ± 16.5
% Predatores	289.9	19.1 ± 10.1
% Scrapers	125.8	52.3 ± 15.7
% Shredder	56.7	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	45.7	10.4 ± 9.6
% Ephemeroptera	23.1	46.7 ± 16.6
% Ephemeroptera that are Baetidae	34.7	21.4 ± 12.7
% EPT Individuals	46.6	84.0 ± 11.1
% of 2 dominant taxa	53.7	52.3 ± 13.6
% of 5 dominant taxa	75.9	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	12.2	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.5	0.9 ± 0.1
Total Abundance	724.4	3078.9 ± 2738.9
Richness		
Diptera taxa	4.0	3.3 ± 1.1
EPT Individuals (Sum)	335.6	2528.6 ± 2360.5
EPT taxa (no)	16.0	12.6 ± 1.9
Simpson's Diversity	0.8	0.8 ± 0.1
Simpson's Evenness	0.2	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-17
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.97
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.21
RIVPACS : Observed taxa P>0.50	14.00
RIVPACS : O:E (p > 0.5)	1.15

RIVPACS Ratios

RIVPACS : Expected taxa P>0.70	7.21
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	1.11

Habitat Description

Variable	EEM-17	Predicted Group Reference Mean ±SD
Channel		
Depth-Avg (cm)	43.8	17.9 ± 7.8
Depth-BankfullMinusWetted (cm)	100.00	64.13 ± 71.10
Depth-Max (cm)	60.0	28.3 ± 13.3
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	0.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	1	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.53	0.59 ± 0.37
Velocity-Max (m/s)	0.72	0.85 ± 0.65
Width-Bankfull (m)	26.7	11.2 ± 6.5
Width-Wetted (m)	14.5	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.27476	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	634.32538	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-16.00369	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	7	6 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	4	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	2	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.36211	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.38404	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.4000000	10.6921875 ± 2.6429965
General-pH (pH)	7.1	8.1 ± 0.4
General-SpCond (µS/cm)	147.0000000	310.0230769 ± 190.2138235
General-TempWater (Degrees Celsius)	8.6000000	8.1378000 ± 2.3543631

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-17 [Q3]
Sampling Date	Sep 13 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.97869 N, 126.78901 W
Altitude	1144
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

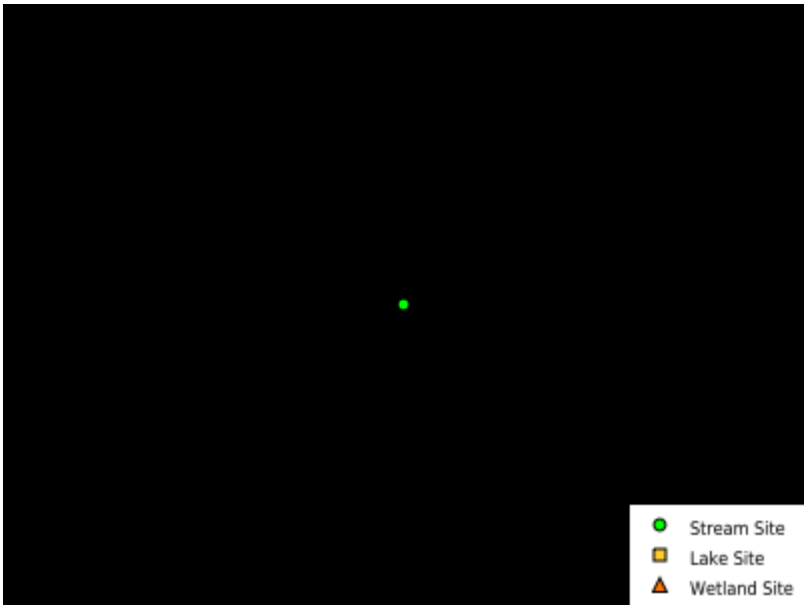


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	42.4%	19.0%	37.5%
CABIN Assessment of EEM-17 on Sep 13, 2025	Highly Divergent			

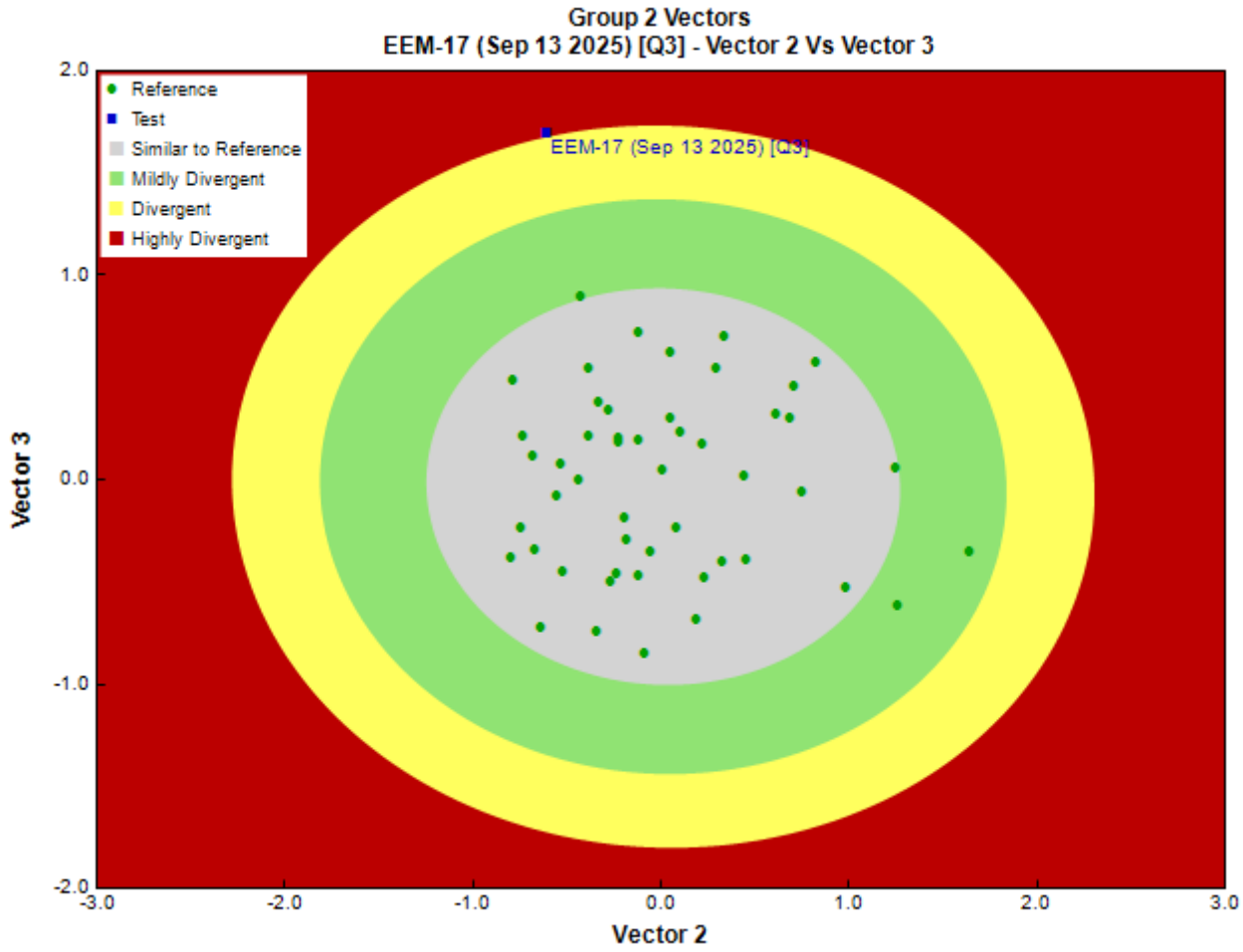


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	16/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes		2	12.5
			Feltriidae	1	6.3
			Hygrobatidae	8	50.0
			Lebertiidae	5	31.3
			Sperchontidae	1	6.3
	Insecta	Diptera		1	6.3
			Ceratopogonidae	7	43.8
			Chironomidae	173	1,081.8
			Empididae	2	12.5
			Psychodidae	1	6.3
			Tipulidae	5	31.4
		Ephemeroptera	Ephemerellidae	24	150.1
			Heptageniidae	7	43.8
		Plecoptera		2	12.5
			Capniidae	6	37.5
			Chloroperlidae	10	62.5

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Nemouridae	2	12.6
			Perlodidae	1	6.3
			Taeniopterygidae	1	6.3
		Trichoptera	Apataniidae	1	6.3
			Brachycentridae	1	6.3
			Hydroptilidae	2	12.5
			Rhyacophilidae	1	6.3
Mollusca	Gastropoda			1	6.3
			Total	265	1,657.8

Metrics

Name	EEM-17	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.7	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	394.3	43.3 ± 16.5
% Predatores	362.3	19.1 ± 10.1
% Scrapers	20.8	52.3 ± 15.7
% Shredder	30.2	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	66.8	10.4 ± 9.6
% Ephemeroptera	12.0	46.7 ± 16.6
% Ephemeroptera that are Baetidae	0.0	21.4 ± 12.7
% EPT Individuals	21.6	84.0 ± 11.1
% of 2 dominant taxa	76.1	52.3 ± 13.6
% of 5 dominant taxa	85.7	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	0.0	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.2	0.9 ± 0.1
Total Abundance	331.3	3078.9 ± 2738.9
Richness		
Diptera taxa	5.0	3.3 ± 1.1
EPT Individuals (Sum)	70.0	2528.6 ± 2360.5
EPT taxa (no)	11.0	12.6 ± 1.9
Simpson's Diversity	0.5	0.8 ± 0.1
Simpson's Evenness	0.1	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-17
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.97
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.21
RIVPACS : Observed taxa P>0.50	11.00
RIVPACS : O:E (p > 0.5)	0.90
RIVPACS : Expected taxa P>0.70	7.21
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	0.97

Habitat Description

Variable	EEM-17	Predicted Group Reference Mean ±SD
Channel		
Depth-Avg (cm)	43.8	17.9 ± 7.8
Depth-BankfullMinusWetted (cm)	100.00	64.13 ± 71.10
Depth-Max (cm)	60.0	28.3 ± 13.3
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	0.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	1	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.53	0.59 ± 0.37
Velocity-Max (m/s)	0.72	0.85 ± 0.65
Width-Bankfull (m)	26.7	11.2 ± 6.5
Width-Wetted (m)	14.5	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.27476	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	634.32538	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-16.00369	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	7	6 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	4	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	2	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.36211	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.38404	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.4000000	10.6921875 ± 2.6429965
General-pH (pH)	7.1	8.1 ± 0.4
General-SpCond (µS/cm)	147.0000000	310.0230769 ± 190.2138235
General-TempWater (Degrees Celsius)	8.6000000	8.1378000 ± 2.3543631

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	ATT-IDZ
Sampling Date	Sep 15 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.97818 N, 126.79846 W
Altitude	1122
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

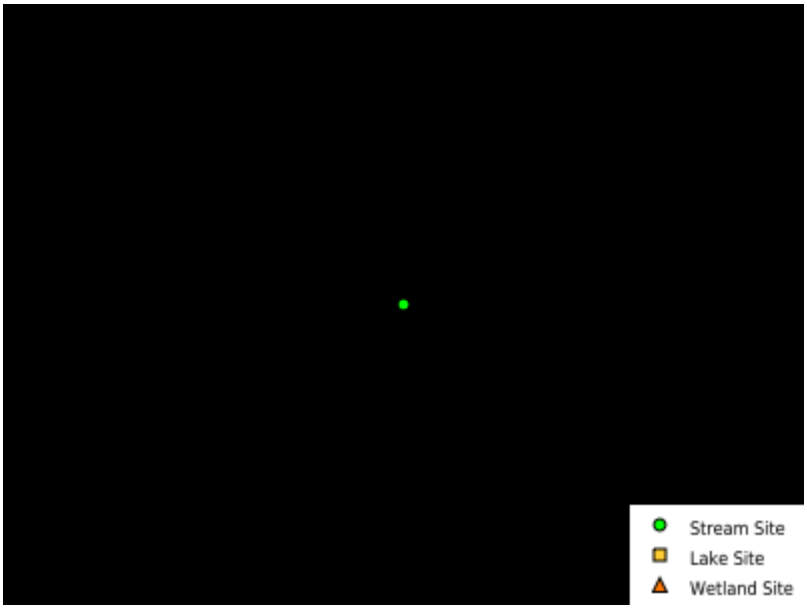


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	42.2%	19.1%	37.7%
CABIN Assessment of ATT-IDZ on Sep 15, 2025	Mildly Divergent			

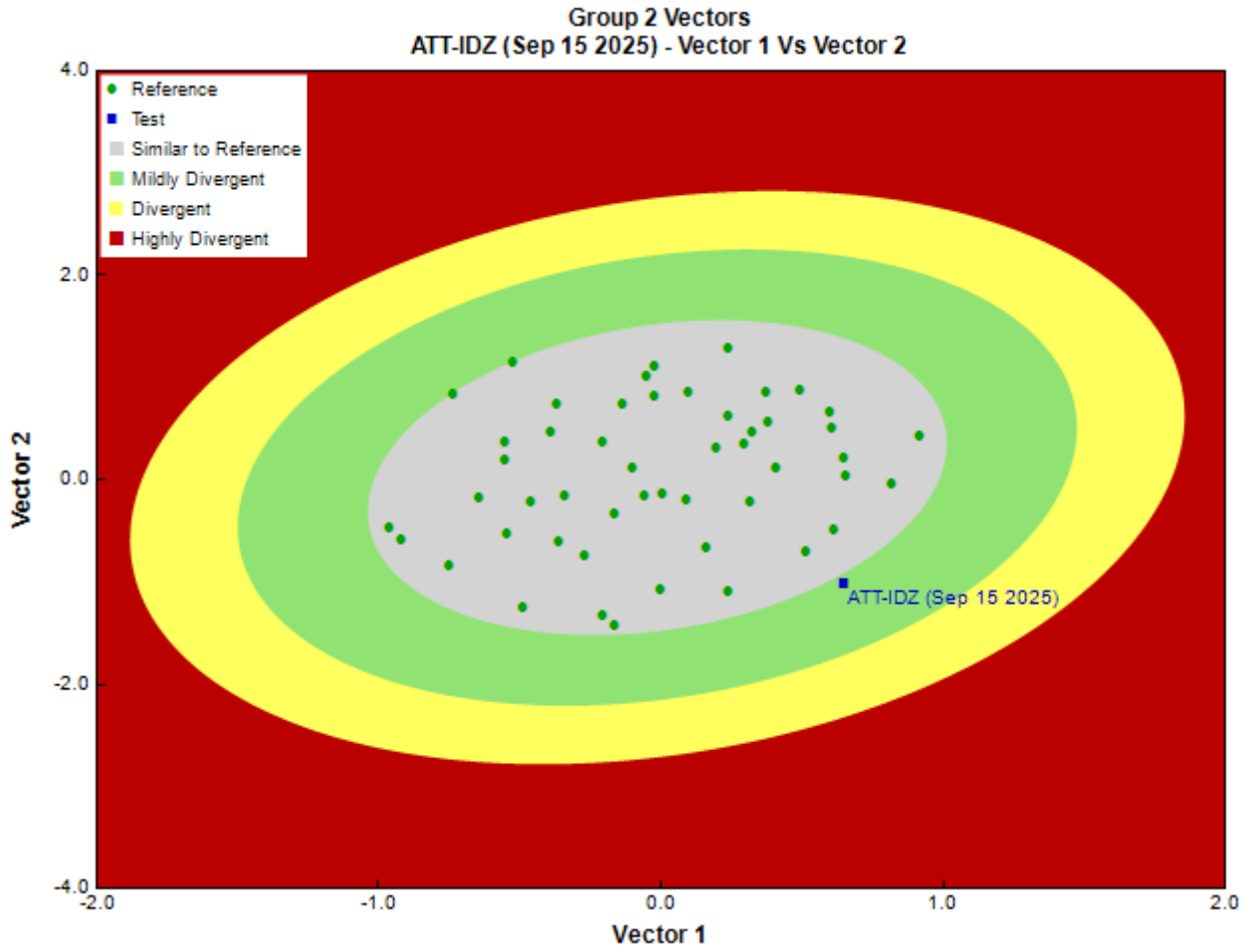


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	10/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Insecta	Diptera	Ceratopogonidae	2	20.0
			Chironomidae	141	1,410.0
			Simuliidae	3	30.0
			Tipulidae	1	10.0
		Ephemeroptera	Ameletidae	2	20.0
			Baetidae	47	470.0
			Ephemerellidae	17	170.0
			Heptageniidae	53	530.0
		Plecoptera		14	140.0
			Capniidae	8	80.0
			Chloroperlidae	12	120.0
			Leuctridae	7	70.0
			Nemouridae	22	220.0
			Perlidae	1	10.0
			Perlodidae	5	50.0
			Taeniopterygidae	8	80.0

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Trichoptera	Brachycentridae	16	160.0
			Glossosomatidae	2	20.0
			Hydropsychidae	1	10.0
			Rhyacophilidae	2	20.0
			Total	364	3,640.0

Metrics

Name	ATT-IDZ	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.48	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	289.8	43.3 ± 16.5
% Predatores	232.1	19.1 ± 10.1
% Scrapers	156.6	52.3 ± 15.7
% Shredder	85.2	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	40.3	10.4 ± 9.6
% Ephemeroptera	34.0	46.7 ± 16.6
% Ephemeroptera that are Baetidae	39.5	21.4 ± 12.7
% EPT Individuals	58.0	84.0 ± 11.1
% of 2 dominant taxa	55.4	52.3 ± 13.6
% of 5 dominant taxa	80.0	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	4.8	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.6	0.9 ± 0.1
Total Abundance	728.0	3078.9 ± 2738.9
Richness		
Diptera taxa	4.0	3.3 ± 1.1
EPT Individuals (Sum)	406.0	2528.6 ± 2360.5
EPT taxa (no)	15.0	12.6 ± 1.9
Simpson's Diversity	0.8	0.8 ± 0.1
Simpson's Evenness	0.2	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at ATT-IDZ
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.97
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.21
RIVPACS : Observed taxa P>0.50	14.00
RIVPACS : O:E (p > 0.5)	1.15
RIVPACS : Expected taxa P>0.70	7.21
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	1.11

Habitat Description

Variable	ATT-IDZ	Predicted Group Reference Mean ±SD
Channel		
Macrophyte (PercentRange)	1	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	2	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.99	0.59 ± 0.37
Velocity-Max (m/s)	1.94	0.85 ± 0.65
Width-Bankfull (m)	28.2	11.2 ± 6.5
Width-Wetted (m)	20.4	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.26524	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	634.18343	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-16.00261	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	6	6 ± 1
Dominant-2nd (Category(0-9))	5	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	3	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.46036	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.37102	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.8000000	10.6921875 ± 2.6429965
General-pH (pH)	7.0	8.1 ± 0.4
General-SpCond (µS/cm)	160.0000000	310.0230769 ± 190.2138235

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	ATT-IDZ [Q2]
Sampling Date	Sep 15 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.97818 N, 126.79846 W
Altitude	1122
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

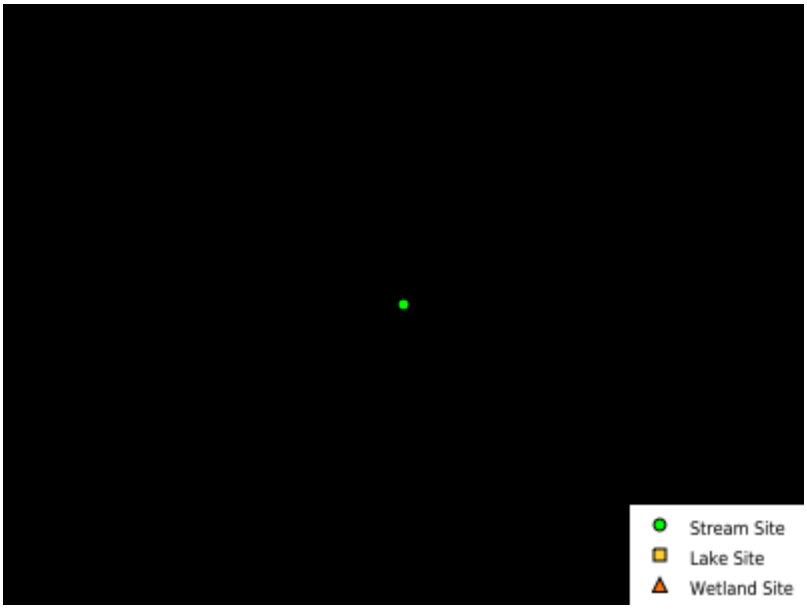


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	42.2%	19.1%	37.7%
CABIN Assessment of ATT-IDZ on Sep 15, 2025	Mildly Divergent			

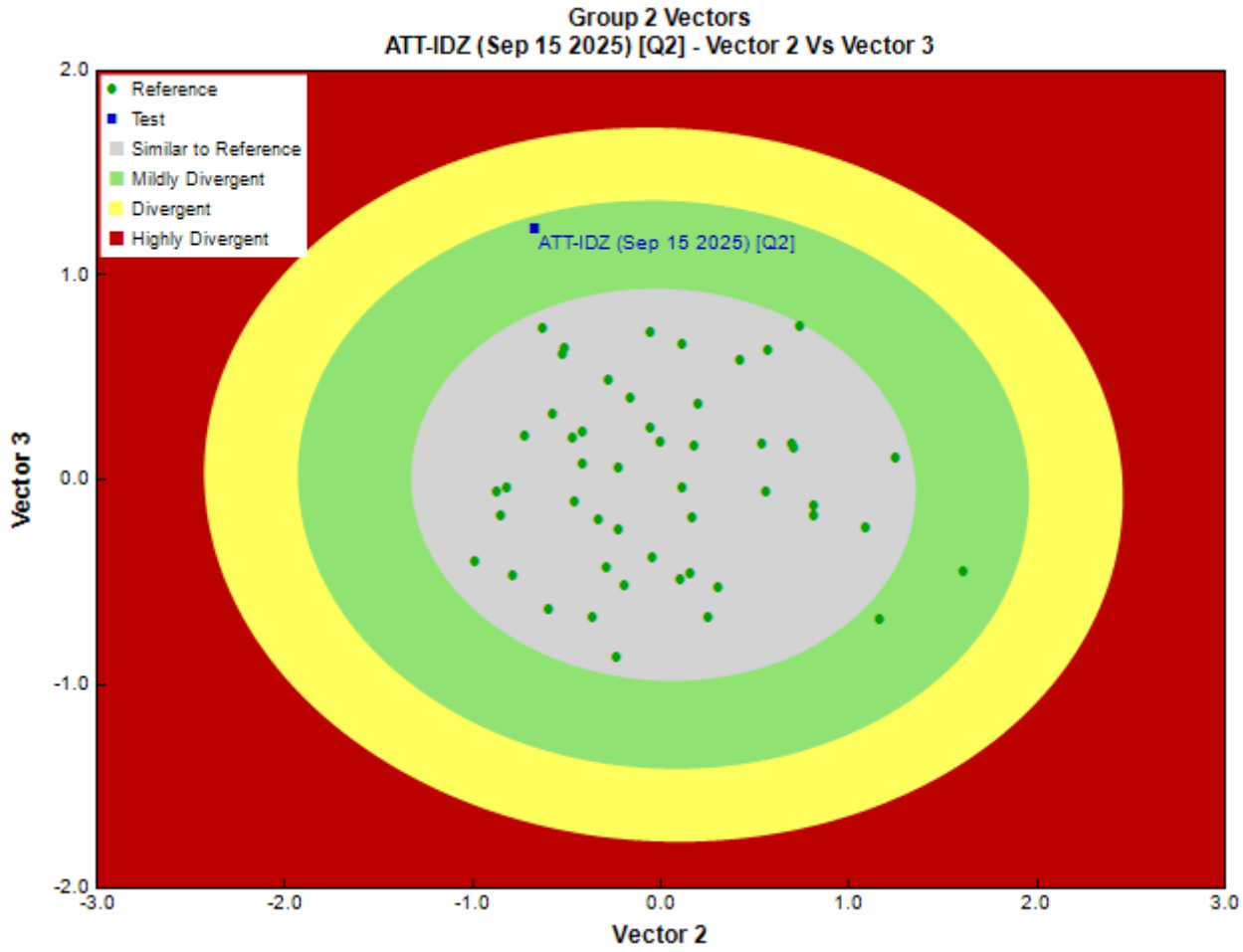


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	11/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Lebertiidae	1	9.1
			Sperchontidae	1	9.1
	Insecta	Diptera	Chironomidae	160	1,454.7
			Empididae	3	27.3
			Tipulidae	3	27.3
		Ephemeroptera	Ameletidae	5	45.5
			Baetidae	43	390.9
			Ephemerellidae	13	118.3
			Heptageniidae	38	345.4
			Leptophlebiidae	1	9.1
		Plecoptera		6	54.5
			Capniidae	12	109.1
			Chloroperlidae	12	109.1
			Nemouridae	8	72.8
			Perlidae	1	9.1
			Perlodidae	1	9.1

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Taeniopterygidae	6	54.6
		Trichoptera	Apataniidae	1	9.1
			Brachycentridae	3	27.3
			Glossosomatidae	3	27.3
			Hydropsychidae	1	9.1
			Total	322	2,927.8

Metrics

Name	ATT-IDZ	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.55	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	310.6	43.3 ± 16.5
% Predatores	265.5	19.1 ± 10.1
% Scrapers	142.9	52.3 ± 15.7
% Shredder	51.2	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	50.6	10.4 ± 9.6
% Ephemeroptera	31.6	46.7 ± 16.6
% Ephemeroptera that are Baetidae	43.0	21.4 ± 12.7
% EPT Individuals	46.8	84.0 ± 11.1
% of 2 dominant taxa	64.2	52.3 ± 13.6
% of 5 dominant taxa	84.2	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	12.5	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.5	0.9 ± 0.1
Total Abundance	585.5	3078.9 ± 2738.9
Richness		
Diptera taxa	3.0	3.3 ± 1.1
EPT Individuals (Sum)	269.1	2528.6 ± 2360.5
EPT taxa (no)	15.0	12.6 ± 1.9
Simpson's Diversity	0.7	0.8 ± 0.1
Simpson's Evenness	0.2	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at ATT-IDZ
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.97
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.21
RIVPACS : Observed taxa P>0.50	13.00
RIVPACS : O:E (p > 0.5)	1.06
RIVPACS : Expected taxa P>0.70	7.21
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	0.97

Habitat Description

Variable	ATT-IDZ	Predicted Group Reference Mean ±SD
Channel		
Macrophyte (PercentRange)	1	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	2	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.99	0.59 ± 0.37
Velocity-Max (m/s)	1.94	0.85 ± 0.65
Width-Bankfull (m)	28.2	11.2 ± 6.5
Width-Wetted (m)	20.4	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.26524	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	634.18343	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-16.00261	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	6	6 ± 1
Dominant-2nd (Category(0-9))	5	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	3	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.46036	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.37102	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.8000000	10.6921875 ± 2.6429965
General-pH (pH)	7.0	8.1 ± 0.4
General-SpCond (µS/cm)	160.0000000	310.0230769 ± 190.2138235

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	ATT-IDZ [Q3]
Sampling Date	Sep 15 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.97818 N, 126.79846 W
Altitude	1122
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

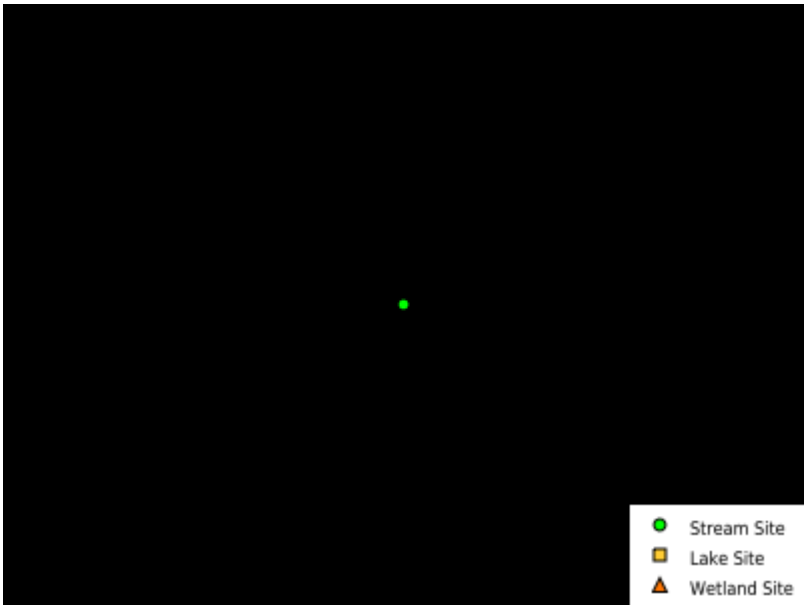


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	42.2%	19.1%	37.7%
CABIN Assessment of ATT-IDZ on Sep 15, 2025	Divergent			

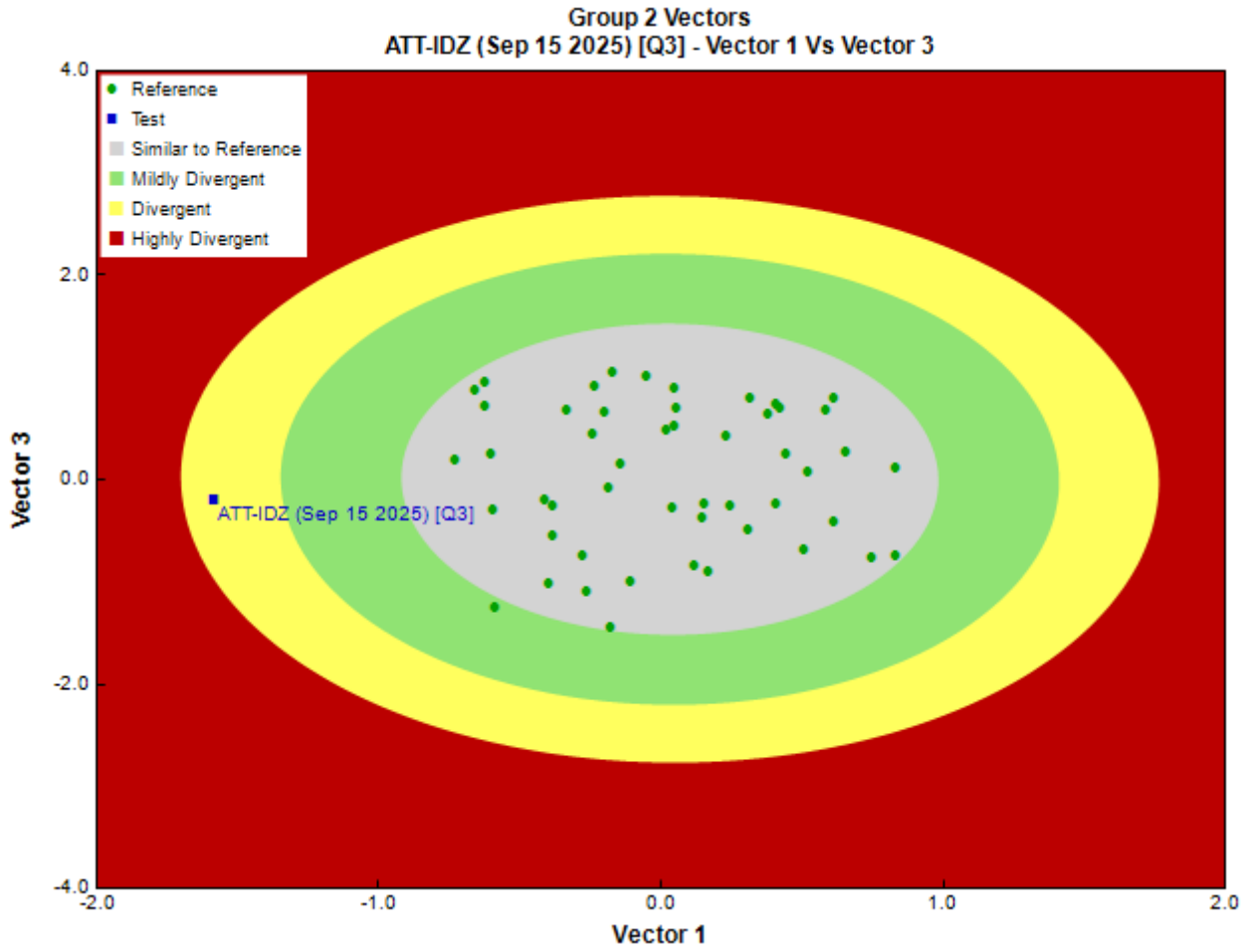


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	5/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Aturidae	2	40.0
			Lebertiidae	1	20.0
			Sperchontidae	1	20.0
	Insecta	Diptera	Chironomidae	311	6,220.0
			Empididae	2	40.0
			Tipulidae	4	80.0
		Ephemeroptera	Baetidae	12	240.0
			Ephemerellidae	18	360.0
			Heptageniidae	19	380.0
		Plecoptera		3	60.0
			Capniidae	2	40.0
			Chloroperlidae	6	120.0
			Nemouridae	6	120.0
			Perlidae	1	20.0
			Perlodidae	1	20.0
			Taeniopterygidae	3	60.0

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Trichoptera	Brachycentridae	5	100.0
			Hydropsychidae	2	40.0
			Total	399	7,980.0

Metrics

Name	ATT-IDZ	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.68	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	437.3	43.3 ± 16.5
% Predatores	408.5	19.1 ± 10.1
% Scrapers	45.1	52.3 ± 15.7
% Shredder	25.1	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	78.5	10.4 ± 9.6
% Ephemeroptera	12.4	46.7 ± 16.6
% Ephemeroptera that are Baetidae	24.5	21.4 ± 12.7
% EPT Individuals	18.9	84.0 ± 11.1
% of 2 dominant taxa	83.3	52.3 ± 13.6
% of 5 dominant taxa	92.4	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	28.6	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.2	0.9 ± 0.1
Total Abundance	1596.0	3078.9 ± 2738.9
Richness		
Diptera taxa	3.0	3.3 ± 1.1
EPT Individuals (Sum)	300.0	2528.6 ± 2360.5
EPT taxa (no)	11.0	12.6 ± 1.9
Simpson's Diversity	0.4	0.8 ± 0.1
Simpson's Evenness	0.1	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at ATT-IDZ
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.87
Ephemerellidae	100%	100%	67%	82%	0.87
Heptageniidae	89%	100%	83%	100%	0.97
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.21
RIVPACS : Observed taxa P>0.50	12.00
RIVPACS : O:E (p > 0.5)	0.98
RIVPACS : Expected taxa P>0.70	7.21
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	0.97

Habitat Description

Variable	ATT-IDZ	Predicted Group Reference Mean ±SD
Channel		
Macrophyte (PercentRange)	1	0 ± 0

Habitat Description

Variable	ATT-IDZ	Predicted Group Reference Mean ±SD
Reach-%CanopyCoverage (PercentRange)	1.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	2	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.99	0.59 ± 0.37
Velocity-Max (m/s)	1.94	0.85 ± 0.65
Width-Bankfull (m)	28.2	11.2 ± 6.5
Width-Wetted (m)	20.4	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.26524	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	634.18343	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-16.00261	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	6	6 ± 1
Dominant-2nd (Category(0-9))	5	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	3	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.46036	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.37102	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.8000000	10.6921875 ± 2.6429965
General-pH (pH)	7.0	8.1 ± 0.4
General-SpCond (µS/cm)	160.0000000	310.0230769 ± 190.2138235

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-18
Sampling Date	Sep 16 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.98180 N, 126.81826 W
Altitude	1132
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

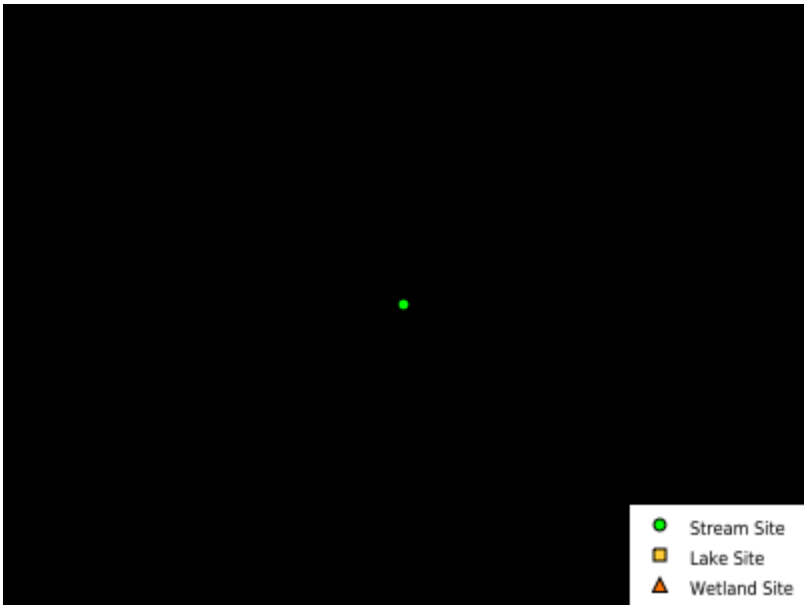


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	41.5%	20.7%	36.8%
CABIN Assessment of EEM-18 on Sep 16, 2025	Similar to Reference			

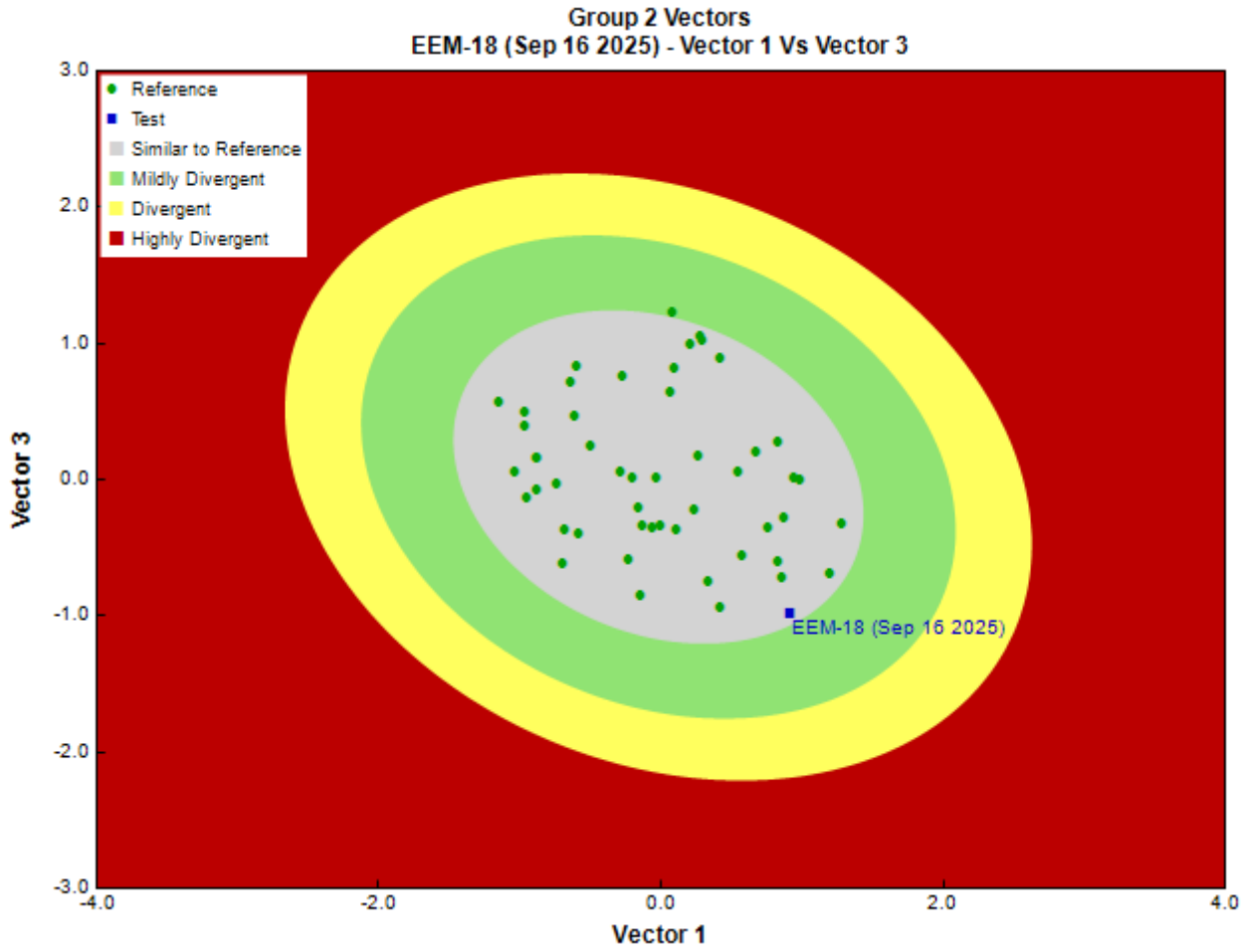


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	13/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Aturidae	1	7.7
			Lebertiidae	10	76.9
			Torrenticolidae	1	7.7
	Insecta	Diptera		2	15.4
			Ceratopogonidae	4	30.8
			Chironomidae	35	269.3
			Empididae	1	7.7
			Tipulidae	8	61.6
		Ephemeroptera	Ameletidae	2	15.4
			Baetidae	25	192.3
			Ephemerellidae	36	276.9
			Heptageniidae	95	730.8
		Plecoptera		5	38.5
			Capniidae	23	176.9
			Chloroperlidae	21	161.5
			Leuctridae	1	7.7

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Nemouridae	15	115.4
			Perlidae	5	38.5
			Perlodidae	10	76.9
			Taeniopterygidae	11	84.6
		Trichoptera	Brachycentridae	3	23.1
			Glossosomatidae	6	46.2
			Hydropsychidae	2	15.4
			Limnephilidae	2	15.4
			Rhyacophilidae	5	38.5
			Total	329	2,531.1

Metrics

Name	EEM-18	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.57	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	169.7	43.3 ± 16.5
% Predatores	110.1	19.1 ± 10.1
% Scrapers	215.6	52.3 ± 15.7
% Shredder	94.8	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	10.9	10.4 ± 9.6
% Ephemeroptera	49.4	46.7 ± 16.6
% Ephemeroptera that are Baetidae	15.8	21.4 ± 12.7
% EPT Individuals	81.6	84.0 ± 11.1
% of 2 dominant taxa	40.9	52.3 ± 13.6
% of 5 dominant taxa	66.9	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	11.8	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.9	0.9 ± 0.1
Total Abundance	503.1	3078.9 ± 2738.9
Richness		
Diptera taxa	4.0	3.3 ± 1.1
EPT Individuals (Sum)	401.5	2528.6 ± 2360.5
EPT taxa (no)	16.0	12.6 ± 1.9
Simpson's Diversity	0.9	0.8 ± 0.1
Simpson's Evenness	0.3	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-18
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.86
Ephemerellidae	100%	100%	67%	82%	0.86
Heptageniidae	89%	100%	83%	100%	0.96
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.19
RIVPACS : Observed taxa P>0.50	14.00
RIVPACS : O:E (p > 0.5)	1.15
RIVPACS : Expected taxa P>0.70	7.19
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	1.11

Habitat Description

Variable	EEM-18	Predicted Group Reference Mean ±SD
Channel		
Depth-BankfullMinusWetted (cm)	25.00	64.13 ± 71.10
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	2	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	1	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	1.18	0.59 ± 0.37
Velocity-Max (m/s)	1.30	0.85 ± 0.65
Width-Bankfull (m)	28.4	11.2 ± 6.5
Width-Wetted (m)	25.4	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.20159	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	633.20229	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-15.99736	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	5	6 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	2	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.22067	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.08375	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.5000000	10.6921875 ± 2.6429965
General-pH (pH)	6.8	8.1 ± 0.4
General-SpCond (µS/cm)	171.0000000	310.0230769 ± 190.2138235

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-18 [Q2]
Sampling Date	Sep 16 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.98180 N, 126.81826 W
Altitude	1132
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

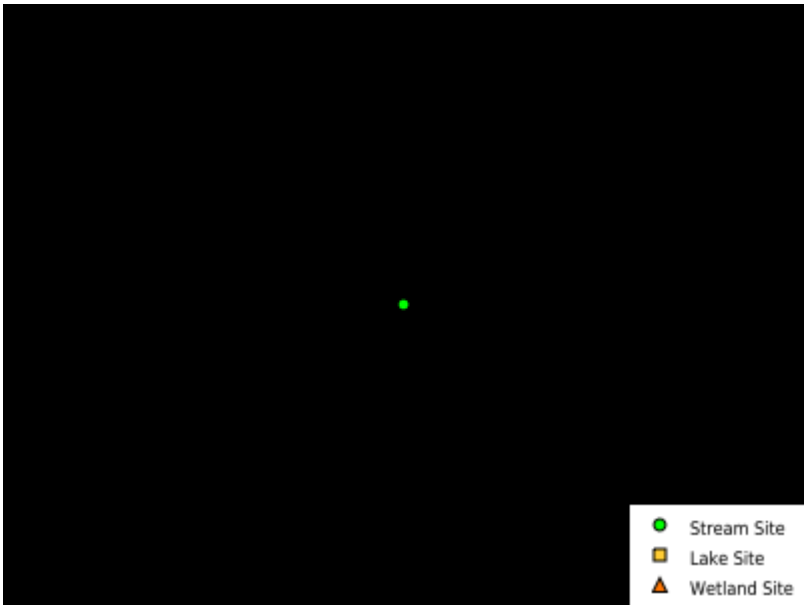


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	41.5%	20.7%	36.8%
CABIN Assessment of EEM-18 on Sep 16, 2025	Mildly Divergent			

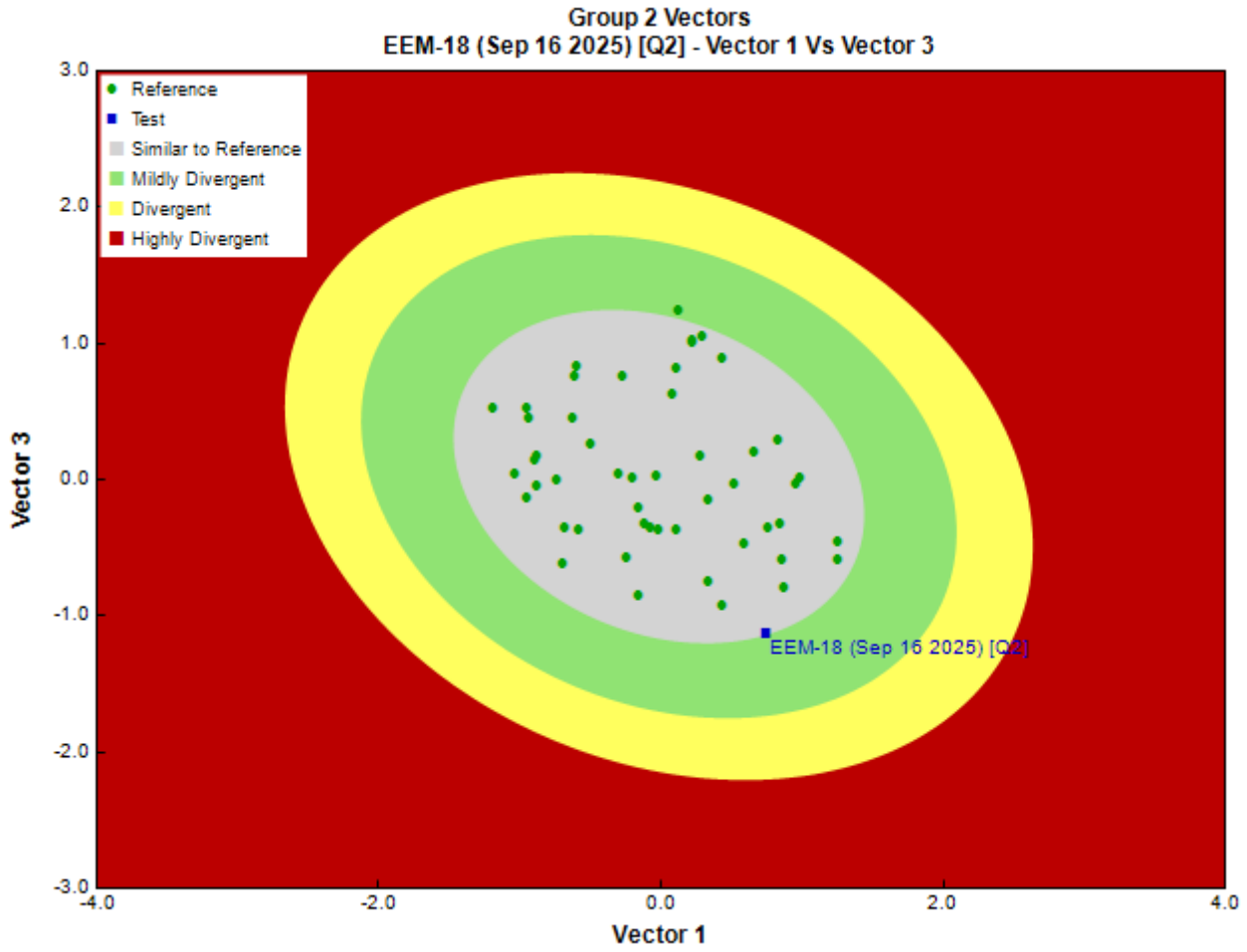


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	16/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Lebertiidae	4	25.0
			Torrenticolidae	2	12.5
	Insecta	Diptera	Ceratopogonidae	2	12.6
			Chironomidae	42	262.7
			Empididae	1	6.3
			Tipulidae	7	43.8
		Ephemeroptera	Baetidae	38	237.5
			Ephemerellidae	35	218.9
			Heptageniidae	84	525.0
		Plecoptera		11	68.8
			Capniidae	18	112.5
			Chloroperlidae	20	125.1
			Nemouridae	7	43.8
			Perlidae	1	6.3
			Perlodidae	7	43.8
			Taeniopterygidae	18	112.5

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Trichoptera	Brachycentridae	21	131.3
			Glossosomatidae	8	50.0
			Rhyacophilidae	5	31.3
			Total	331	2,069.7

Metrics

Name	EEM-18	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.64	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	197.0	43.3 ± 16.5
% Predatores	124.2	19.1 ± 10.1
% Scrapers	224.2	52.3 ± 15.7
% Shredder	107.6	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	13.2	10.4 ± 9.6
% Ephemeroptera	49.2	46.7 ± 16.6
% Ephemeroptera that are Baetidae	24.2	21.4 ± 12.7
% EPT Individuals	81.8	84.0 ± 11.1
% of 2 dominant taxa	39.5	52.3 ± 13.6
% of 5 dominant taxa	69.0	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	0.0	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.9	0.9 ± 0.1
Total Abundance	412.5	3078.9 ± 2738.9
Richness		
Diptera taxa	4.0	3.3 ± 1.1
EPT Individuals (Sum)	326.3	2528.6 ± 2360.5
EPT taxa (no)	12.0	12.6 ± 1.9
Simpson's Diversity	0.9	0.8 ± 0.1
Simpson's Evenness	0.4	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-18
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.86
Ephemerellidae	100%	100%	67%	82%	0.86
Heptageniidae	89%	100%	83%	100%	0.96
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.19
RIVPACS : Observed taxa P>0.50	11.00
RIVPACS : O:E (p > 0.5)	0.90
RIVPACS : Expected taxa P>0.70	7.19
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	1.11

Habitat Description

Variable	EEM-18	Predicted Group Reference Mean ±SD
Channel		

Habitat Description

Variable	EEM-18	Predicted Group Reference Mean ±SD
Depth-BankfullMinusWetted (cm)	25.00	64.13 ± 71.10
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	2	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	1	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	1.18	0.59 ± 0.37
Velocity-Max (m/s)	1.30	0.85 ± 0.65
Width-Bankfull (m)	28.4	11.2 ± 6.5
Width-Wetted (m)	25.4	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.20159	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	633.20229	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-15.99736	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	5	6 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	2	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.22067	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.08375	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.5000000	10.6921875 ± 2.6429965
General-pH (pH)	6.8	8.1 ± 0.4
General-SpCond (µS/cm)	171.0000000	310.0230769 ± 190.2138235

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	EEM-18 [Q3]
Sampling Date	Sep 16 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.98180 N, 126.81826 W
Altitude	1132
Local Basin Name	Attichika Creek
	Attichika Creek
Stream Order	7

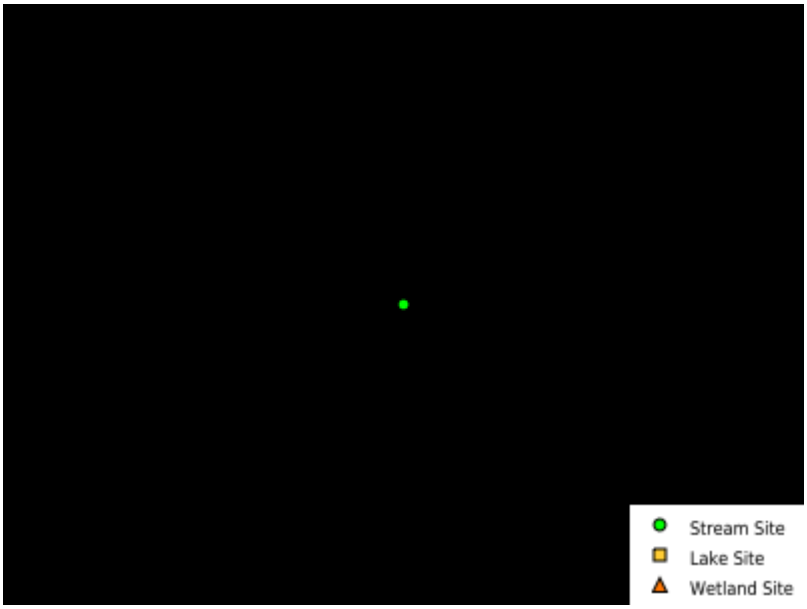


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	1.0%	41.5%	20.7%	36.8%
CABIN Assessment of EEM-18 on Sep 16, 2025	Similar to Reference			

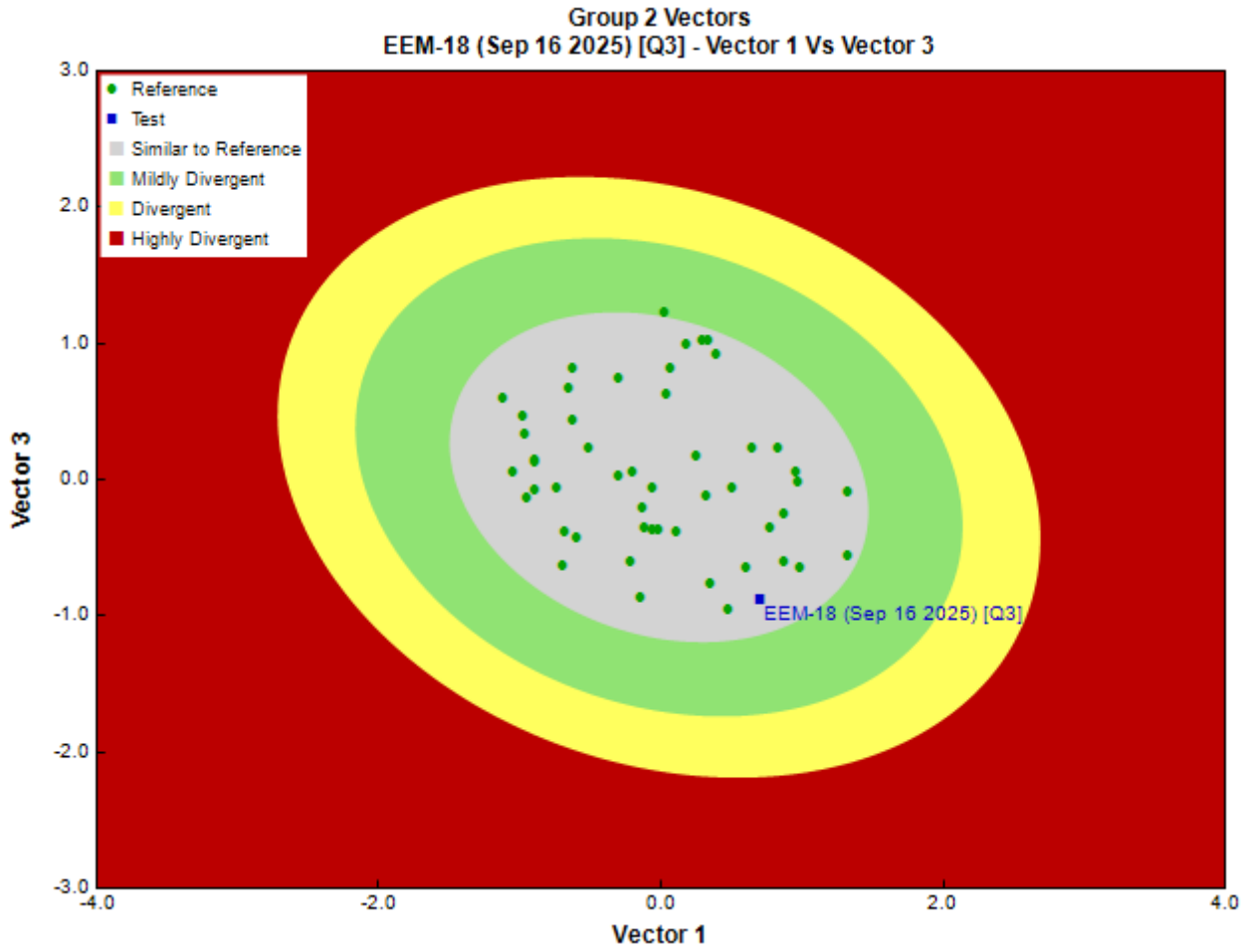


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	8/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Feltriidae	1	12.5
			Hygrobatidae	1	12.5
			Lebertiidae	4	50.0
			Sperchontidae	2	25.0
			Torrenticolidae	1	12.5
	Insecta	Diptera	Chironomidae	62	775.0
			Empididae	3	37.5
			Tipulidae	1	12.5
		Ephemeroptera	Baetidae	12	150.0
			Ephemerellidae	45	562.5
			Heptageniidae	99	1,237.5
		Plecoptera		4	50.0
			Capniidae	7	87.5
			Chloroperlidae	7	87.5
			Nemouridae	12	150.0
			Perlidae	1	12.5

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Perlodidae	6	75.0
			Taeniopterygidae	10	125.0
		Trichoptera	Brachycentridae	11	137.5
			Glossosomatidae	30	375.0
			Hydropsychidae	3	37.5
			Hydroptilidae	1	12.5
			Rhyacophilidae	9	112.5
			Total	332	4,150.0

Metrics

Name	EEM-18	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.41	0.4 ± 0.1
Biotic Indices		
Tolerant individuals (%)	--	0.3 ± 0.2
Functional Measures		
% Filterers	--	0.7 ± 0.1
% Gatherers	219.0	43.3 ± 16.5
% Predatores	154.1	19.1 ± 10.1
% Scrapers	234.1	52.3 ± 15.7
% Shredder	61.9	25.8 ± 16.8
Number Of Individuals		
% Chironomidae	19.0	10.4 ± 9.6
% Ephemeroptera	47.7	46.7 ± 16.6
% Ephemeroptera that are Baetidae	7.7	21.4 ± 12.7
% EPT Individuals	77.1	84.0 ± 11.1
% of 2 dominant taxa	49.2	52.3 ± 13.6
% of 5 dominant taxa	75.8	77.9 ± 9.8
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	5.7	13.8 ± 14.7
No. EPT individuals/Chironomids+EPT Individuals	0.8	0.9 ± 0.1
Total Abundance	827.5	3078.9 ± 2738.9
Richness		
Diptera taxa	3.0	3.3 ± 1.1
EPT Individuals (Sum)	630.0	2528.6 ± 2360.5
EPT taxa (no)	14.0	12.6 ± 1.9
Simpson's Diversity	0.8	0.8 ± 0.1
Simpson's Evenness	0.3	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at EEM-18
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.98
Capniidae	78%	84%	78%	82%	0.82
Chironomidae	100%	100%	100%	100%	1.00
Chloroperlidae	100%	100%	67%	82%	0.86
Ephemerellidae	100%	100%	67%	82%	0.86
Heptageniidae	89%	100%	83%	100%	0.96
Nemouridae	100%	100%	100%	100%	1.00
Rhyacophilidae	78%	98%	44%	55%	0.71

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	12.19
RIVPACS : Observed taxa P>0.50	13.00
RIVPACS : O:E (p > 0.5)	1.07
RIVPACS : Expected taxa P>0.70	7.19
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	1.11

Habitat Description

Variable	EEM-18	Predicted Group Reference Mean ±SD
Channel		
Depth-BankfullMinusWetted (cm)	25.00	64.13 ± 71.10
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.34 ± 0.82
Reach-DomStreamsideVeg (Category(1-4))	2	3 ± 1
Reach-Pools (Binary)	0	1 ± 0
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	1	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 1
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	1.18	0.59 ± 0.37
Velocity-Max (m/s)	1.30	0.85 ± 0.65
Width-Bankfull (m)	28.4	11.2 ± 6.5
Width-Wetted (m)	25.4	6.2 ± 3.1
Climate		
Precip05_MAY (mm)	47.20159	50.74418 ± 2.68539
PrecipTotal_ANNUAL (mm)	633.20229	736.25457 ± 64.27369
Temp02_FEBmin (Degrees Celsius)	-15.99736	-14.15170 ± 1.37832
Substrate Data		
Dominant-1st (Category(0-9))	5	6 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	2	3 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	51.22067	5.03800 ± 19.32309
Topography		
Slope30-50% (%)	15.08375	26.24283 ± 8.58587
Water Chemistry		
General-DO (mg/L)	9.5000000	10.6921875 ± 2.6429965
General-pH (pH)	6.8	8.1 ± 0.4
General-SpCond (µS/cm)	171.0000000	310.0230769 ± 190.2138235

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	WQ-14F
Sampling Date	Sep 11 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.98720 N, 126.79297 W
Altitude	1199
Local Basin Name	Waste Rock Creek
	Attichika Creek
Stream Order	3

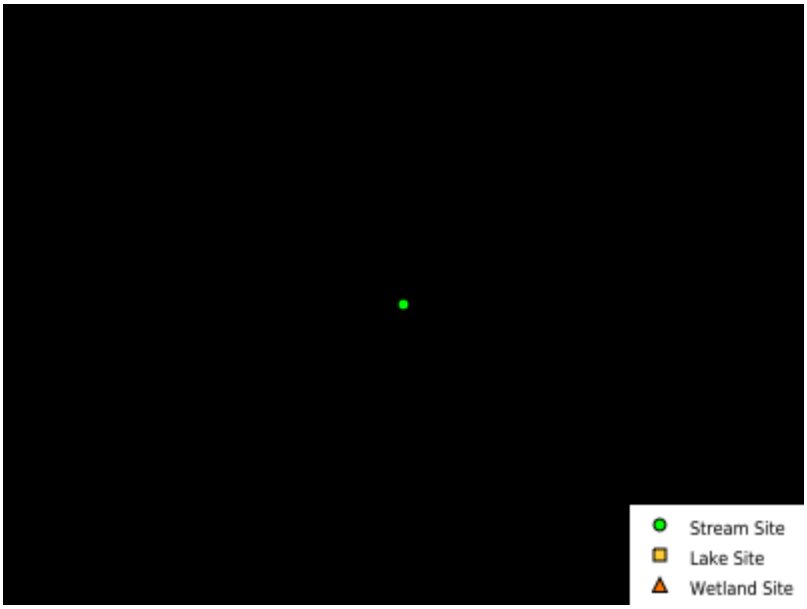


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	0.0%	0.9%	99.0%	0.1%
CABIN Assessment of WQ-14F on Sep 11, 2025	Mildly Divergent			

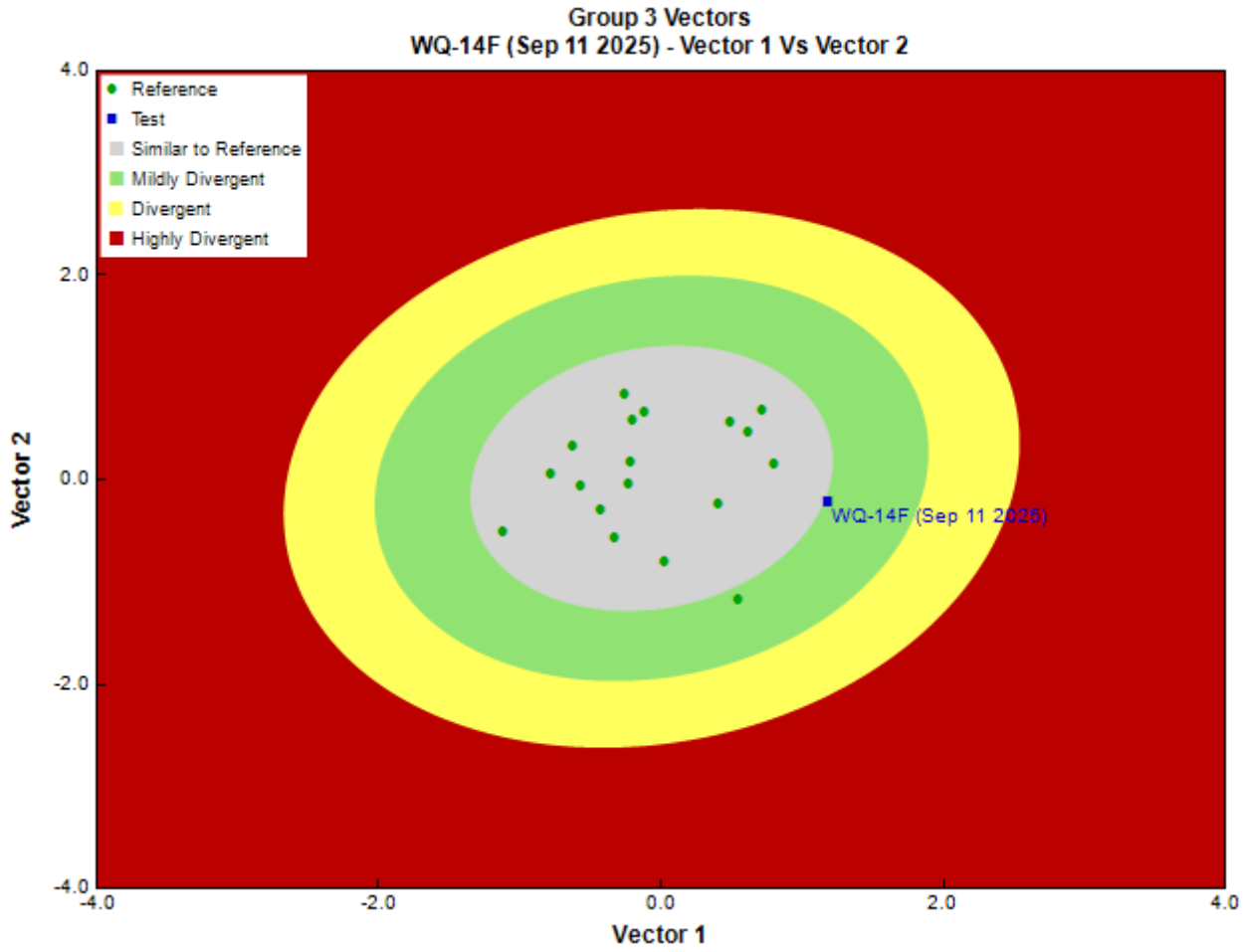


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	8/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Annelida	Clitellata		Enchytraeidae	1	12.5
		Tubificida	Naididae	3	37.5
Arthropoda	Arachnida	Sarcoptiformes		8	100.0
		Trombidiformes		1	12.5
			Hygrobatidae	5	62.5
			Lebertiidae	5	62.5
			Sperchontidae	25	312.5
			Torrenticolidae	7	87.5
	Insecta	Diptera	Chironomidae	176	2,200.0
			Empididae	2	25.0
			Tipulidae	1	12.5
		Ephemeroptera	Baetidae	2	25.0
			Ephemerellidae	2	25.0
			Heptageniidae	2	25.0
		Plecoptera		1	12.5
			Capniidae	18	225.0

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Chloroperlidae	5	62.5
			Nemouridae	13	162.5
			Perlodidae	2	25.0
			Taeniopterygidae	1	12.5
		Trichoptera	Lepidostomatidae	19	237.5
			Limnephilidae	2	25.0
			Rhyacophilidae	10	125.0
			Uenoidae	6	75.0
Cnidaria	Hydrozoa	Anthoathecatae	Hydridae	1	12.5
Mollusca	Bivalvia	Veneroida	Pisidiidae	2	25.0
			Total	320	4,000.0

Metrics

Name	WQ-14F	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.74	0.5 ± 0.2
Biotic Indices		
Tolerant individuals (%)	--	0.5 ± 0.4
Functional Measures		
% Filterers	--	
% Gatherers	66.9	71.2 ± 19.1
% Predatores	74.9	46.4 ± 20.7
% Scrapers	4.2	24.3 ± 10.8
% Shredder	17.4	30.1 ± 21.0
Number Of Individuals		
% Chironomidae	57.0	27.9 ± 19.6
% Ephemeroptera	1.9	16.8 ± 12.8
% Ephemeroptera that are Baetidae	33.3	49.1 ± 33.6
% EPT Individuals	26.5	53.9 ± 20.3
% of 2 dominant taxa	65.0	60.1 ± 18.3
% of 5 dominant taxa	81.2	84.5 ± 11.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	0.0	34.9 ± 37.3
No. EPT individuals/Chironomids+EPT Individuals	0.3	0.7 ± 0.2
Total Abundance	3887.5	1565.1 ± 946.6
Richness		
Diptera taxa	3.0	4.2 ± 1.0
EPT Individuals (Sum)	1025.0	890.9 ± 684.0
EPT taxa (no)	12.0	9.8 ± 3.5
Simpson's Diversity	0.7	0.7 ± 0.2
Simpson's Evenness	0.1	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at WQ-14F
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.89
Capniidae	78%	84%	78%	82%	0.78
Chironomidae	100%	100%	100%	100%	1.00
Empididae	67%	74%	78%	55%	0.78
Heptageniidae	89%	100%	83%	100%	0.84
Nemouridae	100%	100%	100%	100%	1.00
Perlodidae	89%	82%	72%	55%	0.72
Simuliidae	89%	40%	89%	82%	0.88

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	10.78
RIVPACS : Observed taxa P>0.50	11.00
RIVPACS : O:E (p > 0.5)	1.02
RIVPACS : Expected taxa P>0.70	6.89
RIVPACS : Observed taxa P>0.70	7.00

RIVPACS Ratios

RIVPACS : O:E (p > 0.7)	1.02

Habitat Description

Variable	WQ-14F	Predicted Group Reference Mean ±SD
Channel		
Depth-Avg (cm)	0.1	9.6 ± 5.0
Depth-BankfullMinusWetted (cm)	0.00	46.28 ± 46.10
Depth-Max (cm)	0.1	14.2 ± 8.4
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	4.00	2.00 ± 1.24
Reach-DomStreamsideVeg (Category(1-4))	4	3 ± 1
Reach-Pools (Binary)	0	0 ± 1
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	0	1 ± 0
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.38	0.35 ± 0.11
Velocity-Max (m/s)	0.38	0.48 ± 0.19
Width-Bankfull (m)	0.5	10.3 ± 9.5
Width-Wetted (m)	0.5	5.4 ± 8.6
Climate		
Precip05_MAY (mm)	44.76196	44.30022 ± 3.56451
PrecipTotal_ANNUAL (mm)	595.13001	553.67944 ± 66.78492
Temp02_FEBmin (Degrees Celsius)	-15.84967	-15.52754 ± 2.29543
Substrate Data		
Dominant-1st (Category(0-9))	5	5 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	3	1 ± 1
SurroundingMaterial (Category(0-9))	3	2 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	13.01400	28.94716 ± 43.27276
Topography		
Slope30-50% (%)	3.19135	9.30939 ± 9.78194
Water Chemistry		
General-DO (mg/L)	9.6000000	9.9100000 ± 1.6648964
General-pH (pH)	6.7	7.7 ± 1.2
General-SpCond (µS/cm)	333.0000000	348.4500000 ± 368.4016615
General-TempWater (Degrees Celsius)	8.3000000	12.6044444 ± 3.7972362

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	WQ-14ds
Sampling Date	Sep 11 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.98421 N, 126.79933 W
Altitude	1155
Local Basin Name	Waste Rock Creek
	Attichika Creek
Stream Order	3

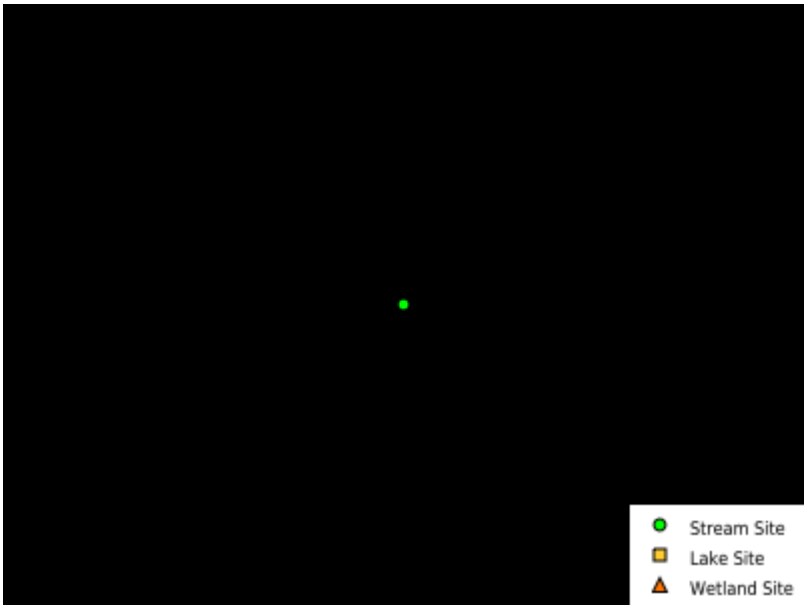


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	0.0%	1.0%	98.9%	0.2%
CABIN Assessment of WQ-14ds on Sep 11, 2025	Similar to Reference			

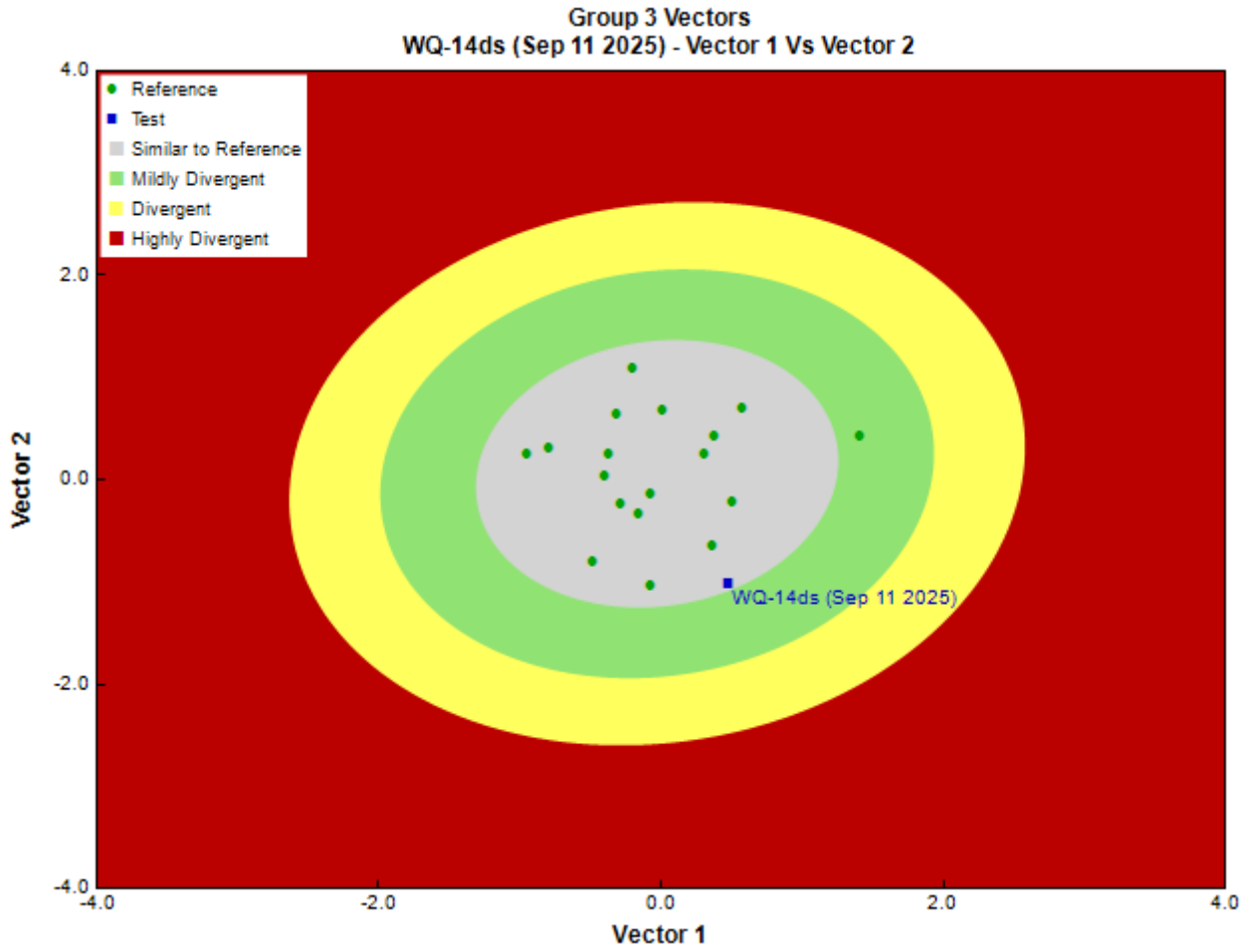


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	10/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes		1	10.0
			Sperchontidae	1	10.0
			Torrenticolidae	3	30.0
	Insecta	Diptera	Chironomidae	14	140.0
			Simuliidae	4	40.0
		Ephemeroptera	Ameletidae	1	10.0
			Baetidae	85	850.0
			Ephemerellidae	38	380.0
			Heptageniidae	32	320.0
		Plecoptera		5	50.0
			Capniidae	16	160.0
			Chloroperlidae	5	50.0
			Nemouridae	113	1,130.0
			Perlodidae	2	20.0
			Taeniopterygidae	36	360.0
		Trichoptera	Hydropsychidae	2	20.0

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Limnephilidae	1	10.0
			Rhyacophilidae	15	150.0
			Uenoidae	1	10.0
			Total	375	3,750.0

Metrics

Name	WQ-14ds	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.76	0.5 ± 0.2
Biotic Indices		
Tolerant individuals (%)	--	0.5 ± 0.4
Functional Measures		
% Filterers	--	
% Gatherers	55.7	71.2 ± 19.1
% Predatores	10.9	46.4 ± 20.7
% Scrapers	42.9	24.3 ± 10.8
% Shredder	44.3	30.1 ± 21.0
Number Of Individuals		
% Chironomidae	3.8	27.9 ± 19.6
% Ephemeroptera	42.3	16.8 ± 12.8
% Ephemeroptera that are Baetidae	54.5	49.1 ± 33.6
% EPT Individuals	94.0	53.9 ± 20.3
% of 2 dominant taxa	53.7	60.1 ± 18.3
% of 5 dominant taxa	82.4	84.5 ± 11.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	10.5	34.9 ± 37.3
No. EPT individuals/Chironomids+EPT Individuals	1.0	0.7 ± 0.2
Total Abundance	3750.0	1565.1 ± 946.6
Richness		
Diptera taxa	2.0	4.2 ± 1.0
EPT Individuals (Sum)	3470.0	890.9 ± 684.0
EPT taxa (no)	13.0	9.8 ± 3.5
Simpson's Diversity	0.8	0.7 ± 0.2
Simpson's Evenness	0.3	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at WQ-14ds
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.89
Capniidae	78%	84%	78%	82%	0.78
Chironomidae	100%	100%	100%	100%	1.00
Empididae	67%	74%	78%	55%	0.78
Heptageniidae	89%	100%	83%	100%	0.84
Nemouridae	100%	100%	100%	100%	1.00
Perlodidae	89%	82%	72%	55%	0.72
Simuliidae	89%	40%	89%	82%	0.88

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	10.78
RIVPACS : Observed taxa P>0.50	12.00
RIVPACS : O:E (p > 0.5)	1.11
RIVPACS : Expected taxa P>0.70	6.89
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	1.02

Habitat Description

Variable	WQ-14ds	Predicted Group Reference Mean ±SD
Channel		

Habitat Description

Variable	WQ-14ds	Predicted Group Reference Mean ±SD
Depth-Avg (cm)	11.0	9.6 ± 5.0
Depth-BankfullMinusWetted (cm)	17.50	46.28 ± 46.10
Depth-Max (cm)	14.1	14.2 ± 8.4
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	2.00	2.00 ± 1.24
Reach-DomStreamsideVeg (Category(1-4))	1	3 ± 1
Reach-Pools (Binary)	0	0 ± 1
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	1	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 0
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.24	0.35 ± 0.11
Velocity-Max (m/s)	0.34	0.48 ± 0.19
Width-Bankfull (m)	2.0	10.3 ± 9.5
Width-Wetted (m)	1.5	5.4 ± 8.6
Climate		
Precip05_MAY (mm)	44.64662	44.30022 ± 3.56451
PrecipTotal_ANNUAL (mm)	593.43134	553.67944 ± 66.78492
Temp02_FEBmin (Degrees Celsius)	-15.82903	-15.52754 ± 2.29543
Substrate Data		
Dominant-1st (Category(0-9))	5	5 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	5	4 ± 1
PeriphytonCoverage (Category(1-5))	1	1 ± 1
SurroundingMaterial (Category(0-9))	3	2 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	16.92885	28.94716 ± 43.27276
Topography		
Slope30-50% (%)	3.04746	9.30939 ± 9.78194
Water Chemistry		
General-DO (mg/L)	8.6000000	9.9100000 ± 1.6648964
General-pH (pH)	7.6	7.7 ± 1.2
General-SpCond (µS/cm)	239.0000000	348.4500000 ± 368.4016615
General-TempWater (Degrees Celsius)	10.3000000	12.6044444 ± 3.7972362

Site Description

Study Name	BC-CENT-Kemess-Hatfield
Site	WRC-5
Sampling Date	Sep 11 2025
Know Your Watershed Basin	Williston Lake
Province / Territory	British Columbia
Terrestrial Ecological Classification	Boreal Cordillera EcoZone Boreal Mountains and Plateaus EcoRegion
Coordinates (decimal degrees)	56.98275 N, 126.79725 W
Altitude	1141
Local Basin Name	Waste Rock Creek
	Attichika Creek
Stream Order	3

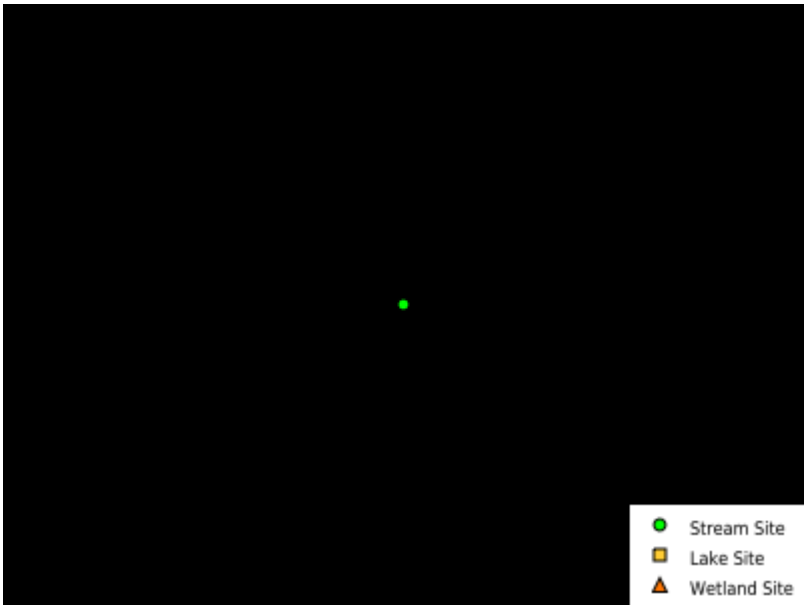


Figure 1. Location Map

Cabin Assessment Results

Reference Model Summary	
Model	Peace River BC 2019
Analysis Date	March 16, 2026
Taxonomic Level	Family
Predictive Model Variables	Glac_Sed_Blanket Precip05_MAY PrecipTotal_ANNUAL Slope30-50% Temp02_FEBmin Veg-Shrubs

Reference Groups	**1**	**2**	**3**	**4**
Number of Reference Sites	9	42	15	11
Group Error Rate	22.2%	20.0%	22.2%	45.5%
Overall Model Error Rate	23.9%			
Probability of Group Membership	0.0%	1.0%	98.9%	0.2%
CABIN Assessment of WRC-5 on Sep 11, 2025	Mildly Divergent			

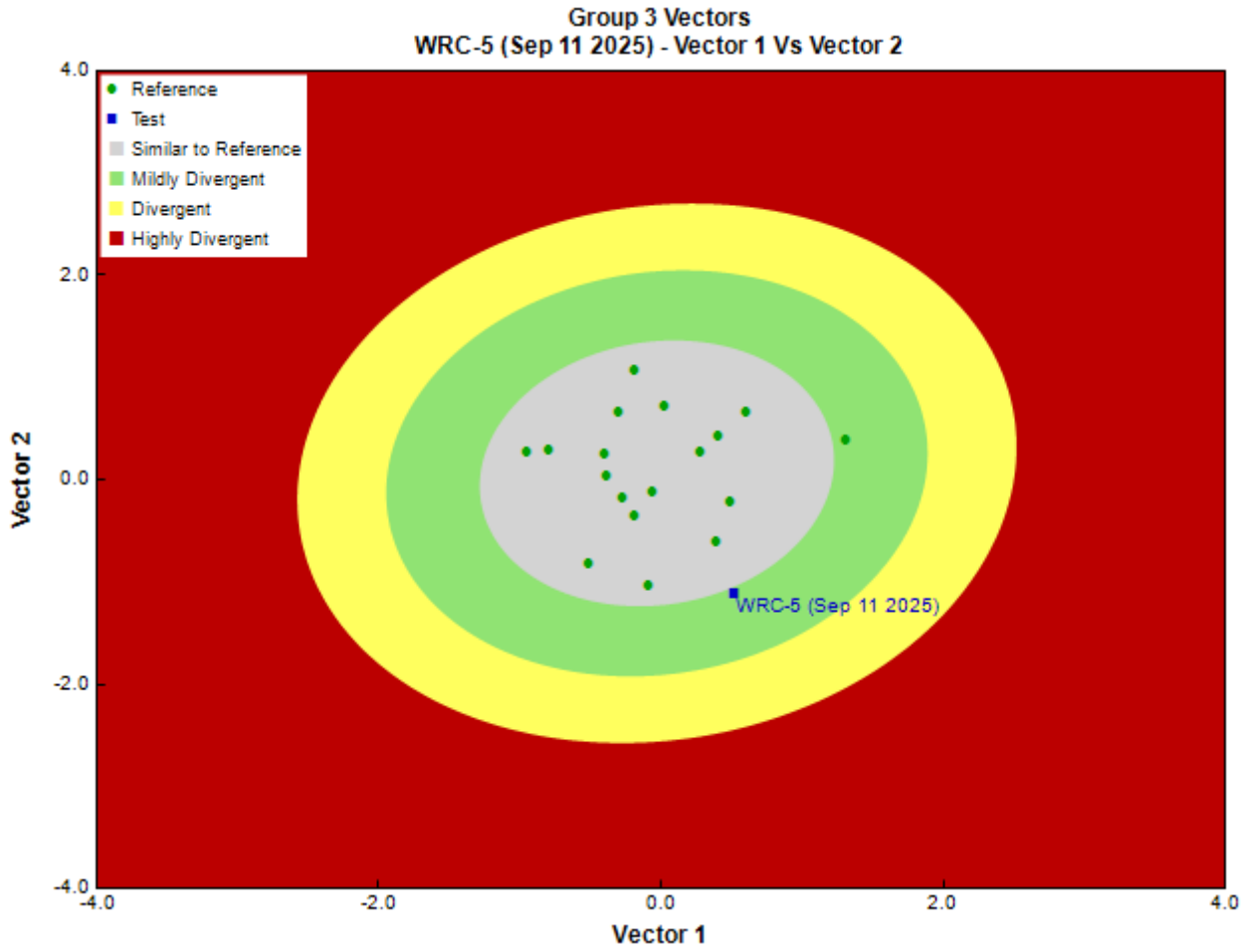


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	-
	-
Sub-Sample Proportion	8/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Hygrobatidae	1	12.5
			Sperchontidae	3	37.5
			Torrenticolidae	3	37.5
	Insecta	Diptera	Chironomidae	15	187.5
			Empididae	2	25.0
			Simuliidae	4	50.0
		Ephemeroptera	Ameletidae	23	287.5
			Baetidae	69	862.5
			Ephemerellidae	22	275.0
			Heptageniidae	29	362.5
		Plecoptera		4	50.0
			Capniidae	6	75.0
			Chloroperlidae	17	212.5
			Nemouridae	90	1,125.0
			Perlodidae	1	12.5
			Taeniopterygidae	22	275.0

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Trichoptera	Glossosomatidae	1	12.5
			Limnephilidae	1	12.5
			Rhyacophilidae	15	187.5
			Total	328	4,100.0

Metrics

Name	WRC-5	Predicted Group Reference Mean ±SD
Bray-Curtis Distance	0.76	0.5 ± 0.2
Biotic Indices		
Tolerant individuals (%)	--	0.5 ± 0.4
Functional Measures		
% Filterers	--	
% Gatherers	53.4	71.2 ± 19.1
% Predatores	12.9	46.4 ± 20.7
% Scrapers	38.7	24.3 ± 10.8
% Shredder	36.5	30.1 ± 21.0
Number Of Individuals		
% Chironomidae	4.0	27.9 ± 19.6
% Ephemeroptera	44.4	16.8 ± 12.8
% Ephemeroptera that are Baetidae	48.3	49.1 ± 33.6
% EPT Individuals	91.9	53.9 ± 20.3
% of 2 dominant taxa	49.4	60.1 ± 18.3
% of 5 dominant taxa	72.4	84.5 ± 11.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	0.0	34.9 ± 37.3
No. EPT individuals/Chironomids+EPT Individuals	1.0	0.7 ± 0.2
Total Abundance	4075.0	1565.1 ± 946.6
Richness		
Diptera taxa	3.0	4.2 ± 1.0
EPT Individuals (Sum)	3700.0	890.9 ± 684.0
EPT taxa (no)	12.0	9.8 ± 3.5
Simpson's Diversity	0.8	0.7 ± 0.2
Simpson's Evenness	0.4	0.3 ± 0.1

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites				Probability Of Occurrence at WRC-5
	Group 1	Group 2	Group 3	Group 4	
Baetidae	100%	100%	89%	100%	0.89
Capniidae	78%	84%	78%	82%	0.78
Chironomidae	100%	100%	100%	100%	1.00
Empididae	67%	74%	78%	55%	0.78
Heptageniidae	89%	100%	83%	100%	0.84
Nemouridae	100%	100%	100%	100%	1.00
Perlodidae	89%	82%	72%	55%	0.72
Simuliidae	89%	40%	89%	82%	0.88

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	10.78
RIVPACS : Observed taxa P>0.50	12.00
RIVPACS : O:E (p > 0.5)	1.11
RIVPACS : Expected taxa P>0.70	6.89
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	1.16

Habitat Description

Variable	WRC-5	Predicted Group Reference Mean ±SD
Channel		

Habitat Description

Variable	WRC-5	Predicted Group Reference Mean ±SD
Depth-BankfullMinusWetted (cm)	31.00	46.28 ± 46.10
Macrophyte (PercentRange)	0	0 ± 0
Reach-%CanopyCoverage (PercentRange)	3.00	2.00 ± 1.24
Reach-DomStreamsideVeg (Category(1-4))	1	3 ± 1
Reach-Pools (Binary)	0	0 ± 1
Reach-Rapids (Binary)	0	0 ± 0
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	0	1 ± 0
Veg-Coniferous (Binary)	1	1 ± 0
Veg-Deciduous (Binary)	0	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 0
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	7.47	0.35 ± 0.11
Velocity-Max (m/s)	8.43	0.48 ± 0.19
Width-Bankfull (m)	2.0	10.3 ± 9.5
Width-Wetted (m)	1.9	5.4 ± 8.6
Climate		
Precip05_MAY (mm)	44.64662	44.30022 ± 3.56451
PrecipTotal_ANNUAL (mm)	593.43134	553.67944 ± 66.78492
Temp02_FEBmin (Degrees Celsius)	-15.82903	-15.52754 ± 2.29543
Substrate Data		
Dominant-1st (Category(0-9))	5	5 ± 1
Dominant-2nd (Category(0-9))	6	6 ± 1
Embeddedness (Category(1-5))	0	4 ± 1
PeriphytonCoverage (Category(1-5))	1	1 ± 1
SurroundingMaterial (Category(0-9))	3	2 ± 1
Surficial Geology		
Glac_Sed_Blanket (%)	16.92885	28.94716 ± 43.27276
Topography		
Slope30-50% (%)	3.04746	9.30939 ± 9.78194
Water Chemistry		
General-DO (mg/L)	8.8000000	9.9100000 ± 1.6648964
General-pH (pH)	7.4	7.7 ± 1.2
General-SpCond (µS/cm)	235.0000000	348.4500000 ± 368.4016615
General-TempWater (Degrees Celsius)	9.7000000	12.6044444 ± 3.7972362

Methods and QC Report 2026

Project ID: Kemess Mine FAEMP 2025 (KEM12954)

Client: Hatfield Consulting Group

Prepared by:
Cordillera Consulting Inc.
Summerland, BC
© 2026

Unit 1, 13216 Henry Ave B1202
Summerland, BC, V0H 1Z0
www.cordilleraconsulting.ca

P: 250.494.7553
F: 250.494.7562

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Sample Reception

On September 25, 2025, Cordillera Consulting received 33 benthic samples from Hatfield Consulting Group. When samples arrived to Cordillera Consulting, exterior packaging was initially inspected for damage or wet spots that would have indicated damage to the interior containers.

Samples were logged into a proprietary software database (INSTAR1) where the clients assigned sample name was recorded along with a Cordillera Consulting (CC) number for cross-reference. Each sample was checked to ensure that all sites and replicates recorded on field sheets or packing lists were delivered intact and with adequate preservative. Any missing, mislabelled or extra samples were reported to the client immediately to confirm the total numbers and correct names on the sample jars. The client representative was notified of the arrival of the shipment and provided a sample inventory once intake was completed.
See table below for sample inventory:

Table 1: Summary of sample information including Cordillera Consulting (CC) number

Site Code	CC#	Date	Size	# of Jars
ABC-4	CC261306	09/17/2025	400 µM	3
ABC-4	CC261307	09/17/2025	400 µM	2
ABC-4	CC261308	09/17/2025	400 µM	1
EEM-18	CC261309	09/16/2025	400 µM	1
EEM-18	CC261310	09/16/2025	400 µM	2
EEM-18	CC261311	09/16/2025	400 µM	2
EEM-13	CC261312	09/10/2025	400 µM	1
EEM-13	CC261313	09/10/2025	400 µM	1
EEM-13	CC261314	09/10/2025	400 µM	1
ATT-IDZ	CC261315	09/15/2025	400 µM	1
ATT-IDZ	CC261316	09/15/2025	400 µM	1
ATT-IDZ	CC261317	09/15/2025	400 µM	1
WQ-14DS	CC261318	09/11/2025	400 µM	1
EEM-17	CC261319	09/13/2025	400 µM	2
EEM-17	CC261320	09/13/2025	400 µM	2
EEM-17	CC261321	09/13/2025	400 µM	1
ATWL-1B	CC261322	09/13/2025	400 µM	3
ACB-1	CC261323	09/14/2025	400 µM	1
ACB-1	CC261324	09/14/2025	400 µM	1

ACB-1	CC261325	09/14/2025	400 µM	1
ACB-2	CC261326	09/18/2025	400 µM	1
ACB-2	CC261327	09/18/2025	400 µM	1
ACB-2	CC261328	09/18/2025	400 µM	1
ATWL-1A	CC261329	09/11/2025	400 µM	2
WRC-BP*	CC261330	09/14/2025	400 µM	3
LENT-DUP1*	CC261331	09/14/2025	400 µM	3
ATWL-3*	CC261332	09/16/2025	400 µM	1
WRC-5	CC261333	09/11/2025	400 µM	1
ACB-3	CC261334	09/12/2025	400 µM	2
ACB-3	CC261335	09/12/2025	400 µM	1
ACB-3	CC261336	09/12/2025	400 µM	1
LREF-1*	CC261337	09/12/2025	400 µM	3
WQ-14F	CC261338	09/19/2025	400 µM	1

Sample Sorting

- Using a gridded Petri dish, fine forceps and a low power stereo-microscope (Olympus, Nikon, Leica) the sorting technicians removed the invertebrates and sorted them into family/orders.
- The sorting technician kept a running tally of total numbers excluding organisms from Porifera, Nemata, Platyhelminthes, Ostracoda, Copepoda, Cladocera and terrestrial drop-ins such as aphids. These organisms were marked for their presence (given a value of 1) only and left in the sample. They were not included towards the 300-organism subsample count.
- Where specimens are broken or damaged, only heads were counted.
- Subsampling was conducted with the use of a Marchant Box.
- When using the Marchant box, cells were extracted at the same time in the order indicated by a random number table. If the 300th organism was found part way into sorting a cell then the balance of that cell was sorted. If the organism count had not reached 300 by the 50th cell then the entire sample was sorted.
- The total number of cells sorted and the number of organisms removed were recorded manually on a bench sheet and then recorded into INSTAR1
- Organisms were stored in vials containing 80% ethanol and an interior label indicating the site names, date of sampling, site code numbers and portion subsampled. This information was also recorded on the laboratory bench sheet and on INSTAR1.
- The sorted portion of the debris was preserved and labeled separately from the unsorted portion and was tested for sorting efficiency (Sorting Quality Control –

Sorting Efficiency). The unsorted portion was also labeled and preserved in separate jars.

Percent sub-sampled and total countable invertebrates pulled from the samples were summarized in the table below.

Table 2: Percent sub-sample and invertebrate count for each sample

Sample	Date	CC#	400 micron fraction	
			% Sampled	# Invertebrates
ABC-4 Rep 1	17-Sep-25	CC261306	11%	336
ABC-4 Rep 2	17-Sep-25	CC261307	17%	323
ABC-4 Rep 3	17-Sep-25	CC261308	29%	332
EEM-18 Rep 1	16-Sep-25	CC261309	13%	329
EEM-18 Rep 2	16-Sep-25	CC261310	16%	330
EEM-18 Rep 3	16-Sep-25	CC261311	8%	331
EEM-13 Rep 1	10-Sep-25	CC261312	25%	322
EEM-13 Rep 2	10-Sep-25	CC261313	26%	320
EEM-13 Rep 3	10-Sep-25	CC261314	15%	326
ATT-IDZ Rep 1	15-Sep-25	CC261315	10%	364
ATT-IDZ Rep 2	15-Sep-25	CC261316	11%	326
ATT-IDZ Rep 3	15-Sep-25	CC261317	5%	411
WQ-14DS	11-Sep-25	CC261318	10%	376
EEM-17 Rep 1	13-Sep-25	CC261319	8%	317
EEM-17 Rep 2	13-Sep-25	CC261320	9%	326
EEM-17 Rep 3	13-Sep-25	CC261321	16%	314
ACB-1 Rep 1	14-Sep-25	CC261323	12%	349
ACB-1 Rep 2	14-Sep-25	CC261324	14%	372
ACB-1 Rep 3	14-Sep-25	CC261325	9%	338
ACB-2 Rep 1	18-Sep-25	CC261326	13%	318
ACB-2 Rep 2	18-Sep-25	CC261327	12%	343
ACB-2 Rep 3	18-Sep-25	CC261328	11%	364
WRC-5	11-Sep-25	CC261333	8%	327
ACB-3 Rep 1	12-Sep-25	CC261334	14%	323
ACB-3 Rep 2	12-Sep-25	CC261335	46%	339
ACB-3 Rep 3	12-Sep-25	CC261336	39%	326
WQ-14F	19-Sep-25	CC261338	8%	355
ATWL-1B	13-Sep-25	CC261322	100%	139
ATWL-1A	11-Sep-25	CC261329	29%	330
WRC-BP	14-Sep-25	CC261330	9%	318
LENT-DUP1	14-Sep-25	CC261331	24%	326
ATWL-3	16-Sep-25	CC261332	36%	414
LREF-1	12-Sep-25	CC261337	23%	335

Sorting Quality Control - Sorting Efficiency

As a part of Cordillera's laboratory policy, all projects undergo sorting efficiency checks.

- As sorting progresses, 10% of samples were randomly chosen by senior members of the sorting team for resorting.
- All sorters working on a project had at least 1 sample resorted by another sorter.
- An efficiency of 90 % was expected (95% for CABIN samples).
- If 90/95% efficiency was not met, samples from that sorter were resorted.
- To calculated sorting efficiency the following formula was used:

$$\frac{\#Orgamisms\ Missed}{Total\ Organisms\ Found} * 100 = \%OM$$

Table 3 Summary of sorting efficiency

		Total from Sample	Percent Efficiency
Site - QC, Sample - QC 1, CC# - CC261314, Percent sampled = 15%, Sieve size = 400			
Chironomidae	9		
Heptageniidae	2		
Baetidae	1		
Total:	**12**	326	96.32%

		Total from Sample	Percent Efficiency
Site - QC, Sample - QC 2, CC# - CC261318, Percent sampled = 10%, Sieve size = 400			
Collembola	1		
Plecoptera	2		
Ephemerellidae	1		
Total:	**4**	376	98.94%

		Total from Sample	Percent Efficiency
Site - QC, Sample - QC 3, CC# - CC261324, Percent sampled = 14%, Sieve size = 400			
Heptageniidae	2		
Ephemerellidae	10		
Plecoptera	1		
Chironomidae	1		
Diptera	1		
Total:	**15**	372	95.97%

Taxonomic Effort

The next procedure was the identification to genus-species level where possible of all the organisms in the sample.

- Identifications were made at the genus/species level for all insect organisms found including Chironomidae (Based on CABIN protocol).
- Non-insect organisms (except those not included in CABIN count) were identified to genus/species where possible and to a minimum of family level with intact and mature specimens.
- The Standard Taxonomic Effort lists compiled by the CABIN manual[1], SAFIT[2] , and PNAMP[3] were used as a guide line for what level of identification to achieve where the condition and maturity of the organism enabled.
- Organisms from the same families/order were kept in separate vials with 80% ethanol and an interior label of printed laser paper.
- Chironomidae was identified to genus/species level where possible and was aided by slide mounts. CMC-10 was used to clear and mount the slide.
- Oligochaetes was identified to family/genus level with the aid of slide mounts. CMC-10 was used to clear and mount the slide.
- Other Annelida (leeches, polychaetes) were identified to the family/genus/species level with undamaged, mature specimens.
- Mollusca was identified to family and genus/species where possible
- Decapoda, Amphipoda and Isopoda were identified at family/genus/species level where possible.
- Bryozoans and Nemata remained at the phylum level
- Hydrachnidae and Cnidaria were identified at the family/genus level where possible.
- When requested, reference collections were made containing at least one individual from each taxa listed. Organisms represented will have been identified to the lowest practical level.
- Reference collection specimens were stored in 55 mm glass vials with screw-cap lids with polyseal inserts (museum quality). They were labeled with taxa name, site code, date identified and taxonomist name. The same information was applied to labels on the slide mounts.

Taxonomy Notes: Baetis tricaudatus group has now been renamed to Baetis rhodani group. There has been no change in the determination of the taxa. See Webb 2017 in the taxonomy keys.

Taxonomists

The taxonomists for this project were certified by the Society of Freshwater Science (SFS) Taxonomic Certification Program at level 2 which is the required certification for CABIN projects:

Scott Finlayson: Group 1 General Arthropods (East/West); Group 2 EPT (East/West); Group 3 Chironomidae (East/West); Group 4 Oligochaeta

Adam Bliss: Group 1 General Arthropods (East/West); Group 2 EPT (East/West); Group 3 Chironomidae
Rita Avery: Group 1 General Arthropods (East/West); Group 2 EPT (East/West)
Garret Naish: Group 2 EPT (East/West)

Taxonomic QC

Taxonomic QC was performed in house by someone other than the original taxonomist.

- Quality control protocol involved complete, blind re-identification and re-enumeration of at least 10% of samples by a second SFS-certified taxonomist.
- Samples for taxonomic quality control were randomly selected and quality control procedures were conducted as the project progresses through the laboratories.

- The second (QC) taxonomist will calculate and record four types of errors:
    1. Misidentification error
    2. Enumeration error
    3. Questionable taxonomic resolution error
    4. Insufficient taxonomic resolution error

The QC coordinator then calculates the following estimates of taxonomic precision.

1. The percent total identification error rate is calculated as:

$$\frac{Sum\ of\ incorrect\ identifications}{total\ organisms\ counted\ in\ audit} * (100)$$

The average total identification error rate of audited samples did not exceed 5%. All samples that exceed a 5% error rate were re-evaluated to determine whether repeated errors or patterns in error contributed.

2. The percent difference in enumeration (PDE) to quantify the consistency of specimen counts.

$$PDE = \frac{|n_1 - n_2|}{n_1 + n_2} x100$$

3. The percent taxonomic disagreement (PTD) to quantify the shared precision between two sets of identifications.

$$PTD = \left(1 - \left[\frac{a}{N}\right]\right) x100$$

4. Bray Curtis dissimilarity Index to quantify the differences in identifications.

$$BC_{ij} = 1 - \frac{2C_{ij}}{S_j + S_i}$$

Error Summary

All samples report errors within the acceptable limits for CABIN Laboratory methods (less than 5% error).

Table 4 Summary of taxonomic error following QC

Site	Taxa Identified	% Error	PDE	PTD	Bray - Curtis Dissimilarity index
Site - Erosional 2025, Sample - ABC-4 Rep 1, CC# - CC261306, Percent sampled = 11%, Sieve size = 400	338	0.00	0.29673591	1.18343195	0.00890208
Site - Erosional 2025, Sample - ATT-IDZ Rep 2, CC# - CC261316, Percent sampled = 11%, Sieve size = 400	326	0.00	0	1.22699387	0.01226994
Site - Erosional 2025, Sample - ACB-2 Rep 1, CC# - CC261326, Percent sampled = 13%, Sieve size = 400	318	0.31	0	0.62893082	0.00628931

There will always be disagreements between taxonomists regarding the degree of taxonomic resolution in immature specimens and when laboratories make use of different keys for certain groups (Mollusks is an especially disputed group). It is always possible that some taxa found by the original taxonomist were overlooked in QC.

All of the Taxonomic QC samples that were observed passed testing according to the CABIN misidentification protocols. See the tables below for results from taxonomic QC audit.

Error Rationale

Site - Erosional 2025, Sample - ABC-4 Rep 1, CC# - CC261306, Percent sampled = 11%, Sieve size = 400	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Baetidae	62	60	No			X		
Baetis	11	13	No			X		
Brachycentrus	37	37						
Capniidae	3	3						
Chloroperlidae	1	1						
Cinygmula	8	8						
Drunella	2	2						
Drunella doddsii	2	2						
Ephemerella	2	2						
Ephemerellidae	5	5						
Eukiefferiella	2	2						
Heptageniidae	176	177	No			X		
Hydropsychidae	1	1						
Kogotus	1	1						
Limnephilidae	1	1						
Mallochohelea	1	1						
Nemouridae	2	2						
Rhithrogena	11	12	No			X		
Rhyacophila vofixa group	1	1						
Sweltsa	1	1						
Taeniopterygidae	1	1						
Testudacarus	1	1						
Zapada cinctipes	1	1						
Zapada columbiana	2	2						
Zapada oregonensis group	1	1						
Total:	**336**	**338**						
					0	4	0	
% Total Misidentification Rate =	misidentifications / total number	x100 =	0.00	**Pass**				

Site - Erosional 2025, Sample - ATT-IDZ Rep 2, CC# - CC261316, Percent sampled = 11%, Sieve size = 400	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Ameletus	5	5						

Apatania	1	1						
Arctopsyche	1	1						
Baetidae	21	18	No			X		
Baetis	10	12	No			X		
Baetis rhodani group	12	13	No			X		
Brachycentrus	3	3						
Capniidae	12	12						
Chloroperlidae	2	2						
Cinygmula	3	3						
Drunella doddsii	4	4						
Drunella grandis group	2	2						
Empididae	1	1						
Ephemerella	2	2						
Ephemerellidae	5	5						
Eukiefferiella	57	57						
Glossosoma	3	3						
Heptageniidae	28	27	No			X		
Hesperoperla	1	1						
Heterotrissocladius	1	1						
Hexatoma	3	3						
Kogotus	1	1						
Lebertia	1	1						
Leptophlebiidae	1	1						
Micropsectra	1	1						
Nemouridae	1	1						
Neoplasta	2	2						
Orthocladius complex	58	58						
Pagastia	12	12						
Plecoptera	6	6						
Polypedilum	3	3						
Rhithrogena	7	8	No			X		
Sperchon	1	1						
Stempellinella	15	15						
Sweltsa	10	10						
Taenionema	3	3						
Taeniopterygidae	3	3						
Tanytarsini	4	4						
Tanytarsus	1	1						
Thienemannimyia group	1	1						
Tvetenia	11	11						
Zapada	5	5						
Zapada cinctipes	2	2						
Total:	**326**	**326**						
					0	5	0	
	misidentifications	x100 =	0.00	**Pass**				

% Total Misidentification Rate =	total number							
Site - Erosional 2025, Sample - ACB-2 Rep 1, CC# - CC261326, Percent sampled = 13%, Sieve size = 400	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Ameletus	2	2						
Baetidae	10	9	No			X		
Baetis rhodani group	5	6	No			X		
Chironomidae	4	4						
Diamesa	20	20						
Dicranota	1	1						
Drunella doddsii	1	1						
Drunella grandis group	1	1						
Ephemerellidae	28	28						
Eukiefferiella	12	12						
Heptageniidae	2	2						
Hydrobaenus	1	1						
Hydropsychidae	1	1						
Kogotus	1	1						
Lebertia	1	1						
Mesenchytraeus	1	1						
Micropsectra	4	4						
Nemouridae	3	3						
Oligophlebodes	18	18						
Orthocladius complex	39	38	No	1		X		
Pagastia	134	135	No			X		
Parapsyche elsis	1	1						
Rhabdomastix	1	1						
Sperchon	5	5						
Stilocladius	1	1						
Taenionema	3	3						
Taeniopterygidae	4	4						
Tvetenia	9	9						
Zapada	2	2						
Zapada columbiana	1	1						
Zapada oregonensis group	2	2						
Total:	**318**	**318**						
					0	4	0	
% Total Misidentification Rate =	misidentifications / total number	x100 =	0.31	**Pass**				

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[3] Pacific Northwest Aquatic Monitoring Partnership (Accessed 2015). www.pnamp.org

Taxonomic Keys

Below is a reference list of taxonomic keys utilized by taxonomists at Cordillera Consulting. Cordillera taxonomists routinely seek out new literature to ensure the most accurate identification keys are being utilized. This is not reflective of the exhaustive list of resources that we use for identification. A more complete list of taxonomic resources can be found at Southwest Association of Freshwater Invertebrate Taxonomists. (2015).
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